MODERN MILLINERY

A Workroom Textbook

HESTER B. LYON

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MODERN MILLINERY

A WORKROOM TEXT BOOK

containing complete instruction in the work of Preparing, Making and Copying Millinery, as actually practiced in the most advanced trade workrooms.

By HESTER B. LYON

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Director of Home Economics, Plymouth Institute
Etc., Etc.

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Millinery in its highest sense always was and always will be a combination of beautiful lines and color. Each year experienced workers try to express more skilfully their concept of LINE. In the past most of the real style was left to the trimmer, to add the dash of line in the trimming; BUT TO MAKE A HAT SUCCESSFULLY TODAY, WHETHER OF STRAW, VELVET, OR OTHER MATERIAL, THE WORKER MUST MAKE THE LINE STITCH BY STITCH, SHAPING AND MOULDING AS SHE GOES. This is the chief part technique plays in the millinery field today.

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MODERN MILLINERY
A WORKROOM TEXT BOOK

MODERN MILLINERY

CHAPTER I.

THE SCOPE OF *MODERN MILLINERY*

THE impulse to make beautiful things is inherent in most of us. But before we can express the best that is in us in any form of art, there must be a period of training and discipline to develop an instinctive technique which allows a free flow of ideas.

In common with other workers in the arts, the milliner can only express her enthusiasm for line, color and harmony after she has acquired by study and practice a thorough knowledge of the mechanics of frame-making and of measuring, cutting and applying materials. Thus millinery work may be divided roughly into two classes—*Construction and Ornamentation.*

It has been felt by the author of this book that the presentation of both classes of millinery work in one volume would introduce the beginner prematurely to the work of trimming and encourage the all-too-prevalent tendency to slipshod production.

MODERN MILLINERY is a complete study of the work of those branches of the trade known as *Preparing, Making and Copying.* In the trade every aspirant must spend at least three years in

this important work before she is permitted to go on to that still more fascinating field known as *Trimming and Designing.*

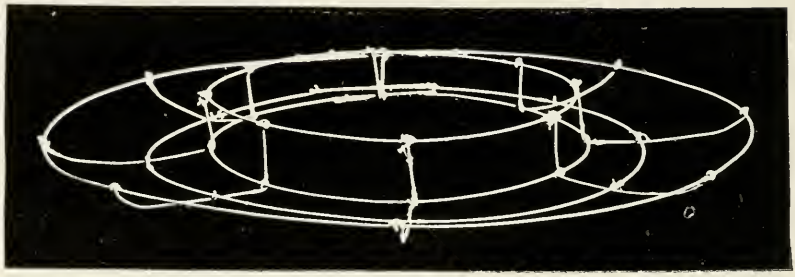
Trimming and Designing — the making and placing of bows, flowers and finishes, and the adaptation of every type of ornament from the museums and other original sources, will be fully treated in another volume now in preparation by the same author.

This does not mean, of course, that MODERN MILLINERY contains only instruction in the drudgery of millinery. The fundamental line of the hat is an essential that has been growing rapidly in importance in recent years. In Paris, that still unchallenged stronghold of millinery design, the development of the line of the hat is considered an art worthy of the time and study of the greatest of her creators. And in MODERN MILLINERY the methods used by the leading creative artists of France and America, to develop ideas and express conceptions in the untrimmed hat, are put into print for the first time.

This book is planned for use as a school textbook. But it is also an adjunct to the progressive workroom, where it is invaluable as an aid to training the staff in the most advanced methods, and it is a friendly guide even to the practicing milliner, to whom a few hints on the efficiency and economy of modern methods may be worth many times the price of the book.

The Scope of Modern Millinery

Throughout this book it has been the author's aim to present the principles back of each of the processes done, so that students following these chapters, whether in workroom or school, might be capable of meeting the requirements of the new styles as they arise. These principles may be applied to all kinds and types of hats tomorrow as well as today. Unless you get the underlying principle given in each of these lessons they will be of little use to you.



Brim for sailor frame. Note the slight upward curve at the ends of the brim wires, although the hat to be produced is a flat sailor. The reason for this is that the edgewire has been made slightly smaller in circumference than the finished hat is to be, to provide for the fullness which always developes in removing the stretched willow from the frame. The frame shown is intended as a form for stretching willow. If it is to be used as a foundation for a Malines hat only four brim wires will be needed—back, front, and two sides

CHAPTER II.

THE FUNDAMENTALS OF FRAME MAKING

WIRE-FRAME making from the trade's standpoint is the foundation of millinery. In the first-class shops an individual frame is made for each customer, giving as much distinction to the hat as is found in the made-to-order gown, so that wire-frame making is to the milliner what modeling is to the sculptor. Only through a knowledge of this art can the designer express the things she has seen or wishes to create.

As *accuracy of measurement* is the first thing a student must learn about wire-frame making, the plain sailor frame is the proper place to

start, as there is no frame that shows up inaccuracy of measurement quite so clearly; also the sailor frame is the only frame that does not require the introduction of curving wires or expression of line, which is really an art to be covered independently. If this teaching is to be worth while we must begin at the foundation, as the trade does.

As these early chapters on the fundamentals of frame-making will be used to initiate beginners, I shall indicate for the benefit of teachers how the successive steps should be presented.

The lesson on the sailor frame may be presented as follows, either by a workroom instructress or in a millinery class room:

Materials

One roll of white French frame-wire.

One spool of tie-wire.

One pair of millinery nippers or pliers of medium size.

One accurate tape measure with numbers starting from each end.

Lead pencil and note book.

At this time, place before your class a perfect sailor frame which you have made from the following measurements:

Headsize	24
Brim	3
Right back	3
Right	3
Right front	3

Front 3
Left front 3
Left 3
Left back 3
Edgewire (Note—the known length of edgewire sailor is unnecessary as it determines itself).

Give a little talk as to the importance of wire-frame making, telling of the two uses of wire frames today: 1, as a block or mould over which willow, buckram, cape net or straw may be shaped and then removed; (2) as skeleton foundation for lace, tulle, Georgette or organdie. Promise your class if they will just follow step by step accurately the measurements you are going to give out, it will not be long before they can make a strong frame.

Preparatory Work

1—Show the student how to open properly a coil of frame wire by removing with the nippers the small pieces of wire used to bind the wire in coil. Place the coil of wire over both hands and shake all the spring out of the wire.

2—Show how nippers are used by the cutting of many short pieces of wire.

Under no conditions start with any measurements until each student has properly opened her coil of wire and can easily cut with the nippers.

3—Take your spool of tie-wire and properly open that.

4—Show the student on your finished frame which wires are held in place by being wound around others and which are tied.

Making the Brim

We are now ready to make the brim—frame brim and crown being separate in the modern sailor frame. In all these operations when first presented I have found it best to get the ideas of the beginners as to how they should be done before demonstrating the one right way. Nothing else will so fix in the pupil's mind the correct method and the reason for it. For example, hold up the finished frame and ask the class where they would begin to make it. After showing them that the headsize is the proper place, start by showing how to take part of the curve out of the wire, explaining as you go that you intend to make each wire the exact shape you want it when finished, before leaving that wire. Place your tape measure very accurately on the end of the outside curve of the wire, holding the end of the tape measure on the wire with the nippers. Measure off the 24 inches with greatest accuracy. Two inches should be allowed for overlapping wherever wires are joined in this way. Therefore dent with the nippers on the 24th inch, but cut off at the 26th. If any student's headsize varies 1/16 of an inch insist on re-measurement until each is accurate and properly shaped. Then take up the headsize you have measured and holding with the left hand take two pieces of tie-wire in the right hand. Join one end of the wire to the other at the exact spot where the dent is placed.

The headsize joined with the wire

Bind together by twisting the tie-wire round with thumb and finger, finish with nippers, then cut off and press down the ends. The headsize should be bound thus in three places, one at the dent to make accurate circumference, second at the other end of the join and third in the middle, which will mark the centre back of the hat. Ask each student to place the oval headsize on the head to see if it is shaped properly. Never go a step further until each student has an accurate, firm and neat headsize.

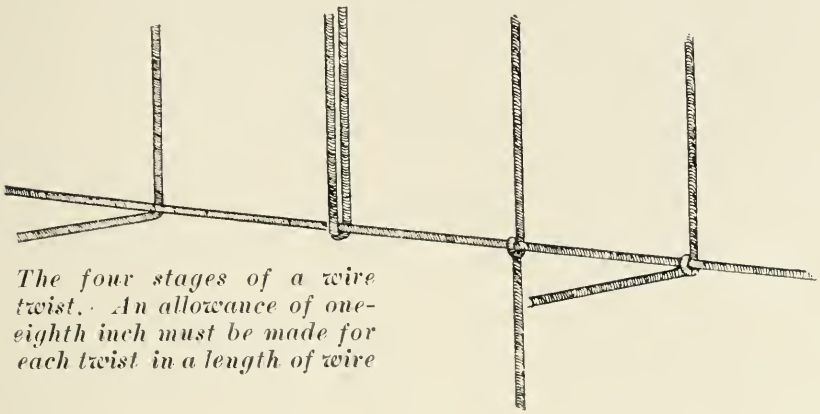
Now explain that the next wire to be put on is the back brim-wire, because this will strengthen the headsize at the join. Show the students that the brim-wires continue past the proper headsize and are wound around an upper headsize whose chief use is for pinning the damp willow to. The allowance of wire to be wound around the upper headsize will be 2 inches.

In quoting measurements for a frame it is customary to give only the required *finished measurements.* In cutting the wire, however, *certain additional allowances must be made* for lengths used up in the course of operation as follows:

Rule 1.—*At the ends of each brim-wire always add 2 inches for leverage in twisting over the headsize and edgewire. This is cut off when the frame is finished.*

Rule 2.—*Repeated testing has proved that each*

time a brim-wire is wound around a headsize or edge-wire, it is thereby shortened 1/8 inch. An allowance of 1/8 inch for each twist is therefore necessary.



The four stages of a wire twist. An allowance of one-eighth inch must be made for each twist in a length of wire

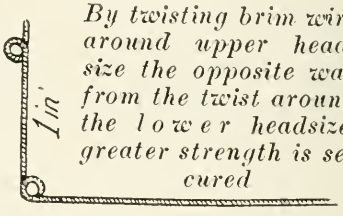
Keeping these rules in mind, let us return again to our original measurements. We find each brim-wire is to be 3 inches when finished. But before cutting your wires you must figure how much longer they must be to allow for twists and leverage. First there are 2 inches at each end for leverage. Then 1/4 inch to be taken up in two twists. Thus the full length of the wire will be 7 1/4 inches. As eight of these wires are needed for this frame and all the same length, measure accurately eight wires before attempting to mount on headsize.

At this point take up the back brim-wire and start to wind around the headsize where the latter is joined. The illustration shows the four stages of a wire twist. First, put on the back brim-wire, second mark on the headsize with lead pen-

cil where the front wire should be placed, after which make a mark showing where each of the brim-wires should be placed. After mounting on the back front and two side brim-wires, explain to the student that before putting on the side front and side back brim-wires it is better to put on the upper headsize. The remaining wires are only braces anyway and can be put on afterwards. This will save much confusion.

Attaching the Upper Headsize

It is now time to put on the upper headsize. The length of wire standing above the headsize will be 1⅞ inches as in the beginning two inches were allowed and ⅛ inch has been taken up by winding around headsize. Measure accurately from headsize wire 1⅛ inch along this upstanding wire. Bend the remaining ¾ inch at perfect right angle *towards the centre* of crown. Explain that by having the upper wire bent the opposite way from the lower end of the wire a frame is produced which, if securely wound, is immovable. Now make another headsize wire, as the first was done. Place it under these upstanding wires and secure it by winding the bent ends around it, using for leverage the ¾ inch left after bending. Then cut off whatever remains of the ¾ inch wire after winding.



By twisting brim wire around upper headsize the opposite way from the twist around the lower headsize, greater strength is secured

Attaching the Upper Headsize

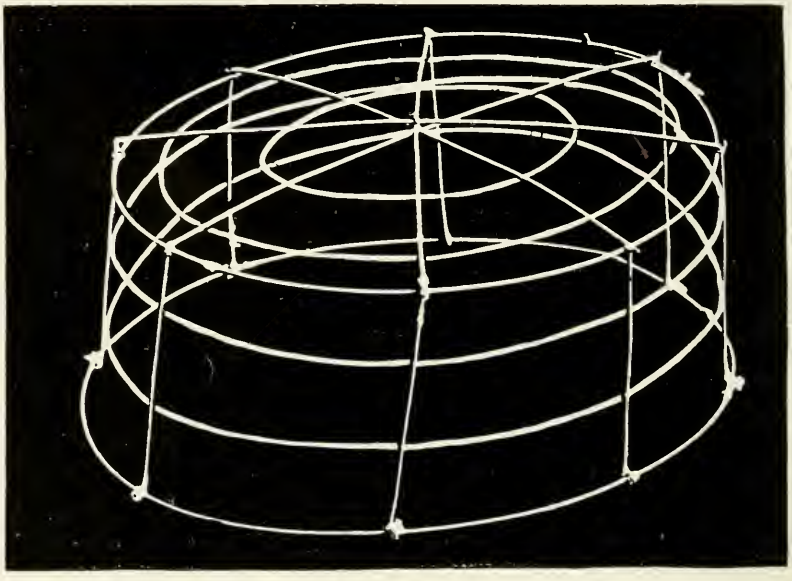
Have the students remeasure and they will find that the space between upper and lower headsize is now one inch and that the brim-wires are now 3⅛ inches long with the inches allowed beyond right-angle curve for edge-wire leverage. At this point put on the side-front and side-back wires and the frame will be ready for trimming up, before attempting to put on the edge-wire. Ask each student to see not only that the brim-wires are secure on the headsize, but that they make a straight line when looking from front to back. Also have them look along all the other wires to make sure they form a straight line.

At this point explain that the tendency of a sailor frame is to spring front and back and that as this frame is to be used for a block on which to stretch willow, the wisest thing to do is slightly to roll the end of each brim-wire before starting to put the edge-wire on, thus making the edge-wire enough smaller in circumference to take care of the fullness that is bound to be left in the edge when taking the willow off the frame. Start at the left side-back to mount the edge-wire, taking care to keep the frame in line as already shaped. After joining all brim-wires to the edge-wire from left side-back to right side-back you learn where the edge-wire ends. Cut it at the right point, join the two ends with tie-wire and then—and not till then—wind the back brim-wire around double edge-wire. The brim is now completed. Go over it and straighten every wire, checking up by sighting along the wires from front to back, side to side, etc., to see that they make a straight line.

The Crown

As to-day the wire crown has little or no use as a block in the workroom, it hardly seems necessary to spend much time giving a lesson on it. However, one may make in wire the line which it is intended to express in the soft crown and therefore it must not be passed by altogether.

Give a little introductory talk at this time on the choice of crown suitable for the brim. Call the student's attention to the fact that an unbecoming crown has as much to do with spoiling a completed hat as an unbecoming brim.



In making the wire crown allowance must be made in the circumference so as to permit the crown headsize to slip over the brim headsize easily

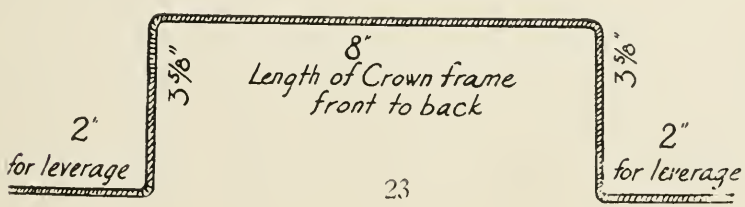
The Crown

Start now to make the crown. Show how it is necessary to make the crown headsize enough larger in circumference to slip over the brim headsize easily. Twenty-six inches is a safe measurement for a crown headsize for a 24-inch brim, but be very sure to point out that there is no definite rule as to this matter. Many customers look well in a crown that sets farther out on the brim or perhaps close to the brim headsize on one side and well down on the other.

Begin now to impress upon your class that while accuracy of measurements is necessary at some stages of hat-making, *effect* is the first and last word in millinery. Therefore the type and size of the crown must be decided, first by the type of customer to be adorned, second the prevailing style of the season. I will take for measurements a simple flat-top crown to show how wire crowns are made.

Headsize	26
Height of crown	3½
Length of tip	8
Width of tip	6
Diagonals	7

First measure the crown headsize (26 inches), dent, cut off at the 28-inch mark and join in an oval with tie-wire. If the height of the crown is to be 3½ inches when finished, bend a wire as shown in the illustration. This wire is to extend from front to back.



Then bend the wire that extends from side to side. This wire is bent exactly the same, except that the top dimension will be 6 instead of 8. Next bend the two side-front to side-back wires. In these, the top dimension will be 7 instead of 8, *and the side-lengths will be* 3½ *instead of* 3⅝, as these are tied in place with tie-wire, and do not need the extra ⅛ required by the other two for the twist around the crown-wire.

Attach all these wires, remembering that A. B, C, D are wound around the crown headsize, while the other wires are merely tied with tie-wire. After winding the ends around the crown-edge wire, tie the crown-wires at their intersection with tie-wire. Tie a circular brace around the crown where the side-crown turns at right angle to form the tip. Use your eyes in tying in this brace to keep crown in line. Tie one circular brace between this brace and centre-crown and braces around side-crown to brace it.

The brim also at this time may be braced by using two circular braces. Explain that the number of circular braces is determined by the blocking material to be used on the frame. Cape net, for instance, requires more braces than the firm willows that do not sink between wires.

The brim and crown are now completed.

I find it takes many attempts before students are able to make this frame successfully, but if the instructress is patient, she will insist on repeated attempts until the frame is securely made, imparting in this first frame accuracy of measurement, which is the first essential of wire-frame making.

CHAPTER III.

EXPRESSION OF LINE

IT is clear that *accuracy of measurement must* be carried out in every phase of wire-frame making. But in carrying this question of accuracy into this lesson let us understand its proper place. What place has it in wire-frame making from its high artistic side? *Is it, after all, anything more to the art than the wire or the nippers unless coupled with it is a sense of expression of line?* The two big things in wire-frame making are:

First, accuracy of measurement, which is merely an instrument to help achieve the second essential, expression of line.

Making a Mushroom Frame

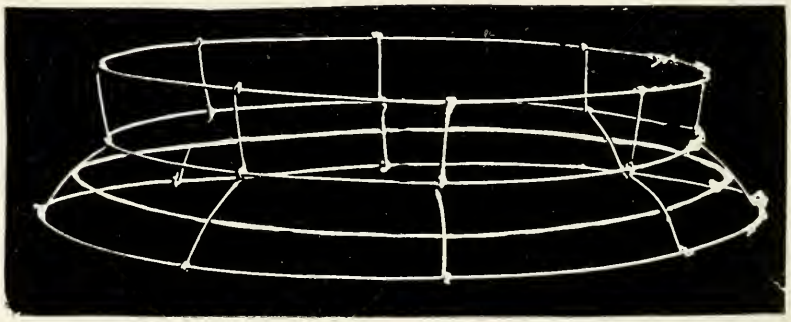
After making the plain sailor frame, the best introduction to the more difficult frames is the simple mushroom frame. Herein will be taken the first steps in *shaping or curving* wires that are also *accurately measured*, showing that wires may express as many different lines as there are people handling them.

I will give the simplest possible measurements for this mushroom frame:

Headsize .....23 inches
Edgewire .....29½ inches

Brim wires are all to be 1½ inches when finished. Finished measurements of frame from

Front to back.....10¼ inches
Side to side..... 8¾ inches
Side front to side back.. 9½ inches



Simple Mushroom Frame

Give a little talk at this time on the *choice of frame wire* best adapted to carry out one's design. Generally speaking, it is best to choose from the three qualities of frame wire, the medium-weight wire instead of the heavy wire that was used in making the plain sailor frame, as this softer wire will better express the line of a curved brim.

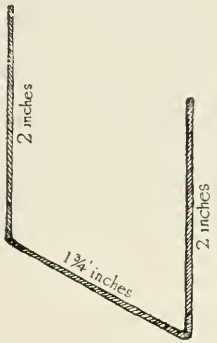
Start this frame as you did the plain sailor—at the headsize. Ask your class to measure shape and tie properly a 23-inch headsize.

Go through the class, hold up each headsize and ask every member of the class to criticize it.

Making a Mushroom Frame

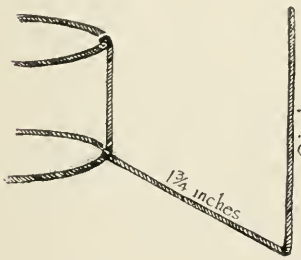
Never answer any questions that once have been clearly covered, but instead call on members of the class to answer them.

At this time hold up the finished mushroom shape and let the students discuss the points of similarity between this frame and the sailor just made. Have each student bend a wire as shown in the cut. It will be recalled that each brim-wire is to be 1½ inches long, but as this wire is to be wound around the headsize and edge-wire, ¼ inch additional should be allowed for these twists, making the brim-wires at this stage all 1¾ inches long. The 2 inches on each end of the wire is for leverage to wind around the edge-wire.



As each wire is of equal length, have 8 wires bent and properly cut for the brim-wires. The wires are now ready to mount on the headsize, which should be marked with a pencil at eight equal points.

When this is done call attention to the first point of difference between this frame and the sailor—namely the different position in which the brim-wires are placed on the headsize. Instead of being at right angles with the upright wire, it should be in position as shown in the cut. Ask your students to place four brim-wires on at this angle, then put on the upper

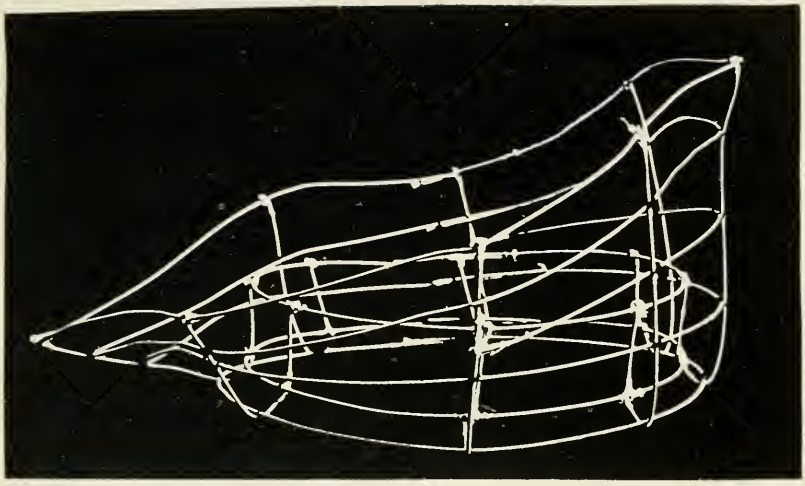


headsize by first measuring 1⅛ inches on the 2-inch wire left standing above the headsize, and winding around the upper headsize. The frame now has four brim-wires mounted. It is now time to curve each wire. Point out to the class that this is the beginning of a phase of frame-making that will be elaborated as different shapes are desired, until they can express any shape they see in shop windows or pictures. In this mushroom frame, unlike the sailor, *a measurement is given for the edge-wire,* as this governs the size of the finished shape. Make up the edge-wire according to the measurement already given, as you did with the headsize. Mark with a lead pencil into eight equal parts and wind in place the four wires already wound around the headsize. Then mount the four remaining brim-wires. Tie one circular brace half way between the edging and the headsize.

At this point give out finished measurements for the frame. Turn your own finished frame over and show where these measurements come from.

Front to back.....	10¼ inches
Side to side.....	8¾ inches
Side front to side back..	9½ inches

The value of finished measurements is as a standard to tell whether the frame is properly shaped. The mushroom brim is now completed. As rarely, if ever, wire crowns are used for blocks, I shall not give instructions here as to the making of suitable crowns for mushroom brims.



Wire frame for irregular turban. This shape illustrates facing lines

CHAPTER IV.

1—MAKING A FACING LINE

2—MAKING A FRAME FROM MEASUREMENTS

I AM going to use the same frame, that of an irregular turban, to present both of these lessons. In the first lesson on the sailor frame we covered the first point in wire frame-making *accuracy of measurements*, in the second lesson on a mushroom frame we learned the simplest lesson on curving wires or the *expression of line*. The turban frame we are about to study will add to *accuracy* and *expression of line* a new factor, namely, a *facing line*.

A turban frame has been selected for this lesson because turbans always have facing lines. Other frames—aside from the mushroom, which never has a facing line—may have a facing part way around the hat, which may be lost sight of across the front or one side.

First, let me explain the value of a facing line. There are very few customers who do not want each season some type of small turban. The question arises, how is it possible to make turbans becoming to various types? At this point the facing line comes to our rescue. You will observe by the frame illustrated, the wires drop down from the headsize instead of coming out straight as on the sailor brim and, unlike the mushroom, these wires are not to be shaped or curved between the headsize and the point where the facing line is to be bent.

How Deep Should the Facing Line Be?

The question at once arises how deep should this facing line be bent. *Two things govern the depth of a facing line*:

1.—*Whether it is becoming to show a good deal, or a very little, of the hair.*

2.—*The style of the season.*

To illustrate this second point: A few seasons ago all small hats were worn perched on top of the head, and straight, instead of being tilted; and facing lines were very shallow at all points. Following that season came a style calling for small hats to be worn at an extreme angle; con-

sequently the facing line was bent much deeper on one side than the other, to throw the frame at an extreme angle while still placed straight on the head. The best way to make a frame for an individual is to place the unfinished wire frame on the head and bend the depth of facing line on the customer, trying first what the style of the season calls for, and if this is not becoming, modify in depth and angle to suit the customer.

How Close to the Face?

When the depth of the facing line is determined, the question arises, how close to the face should the angle be? It is generally true that a customer with a small face needs the circular wire drawn close to the hair to avoid a heavy hat, while one with a full face can carry a facing line let out more by the circular wire. *In both these cases the facing line may be the same depth.* The point of difference is the *circumference of the facing line.*

It is even possible to add a facing line to a sailor hat. I have in mind a customer who was very desirous of wearing a sailor but had been unable to find one that was becoming. An irregular facing line was introduced on a sailor frame not only bringing the design down on the head, but adding a tilt to the construction of the hat which was most successful. No matter how becoming the outline of a hat may be, if the facing line is too heavy, or is out of proportion, the hat is ruined.

In the point of construction, our turban frame is now bent for the depth of the facing line; a circular wire is tied at this angle with a small piece of tie wire, to hold the facing line in place and make the proper size of that facing line.

Frame-making from Measurements

The point I have tried to make thus far in reference to the turban is the value and use of the facing line and how the most becoming measurements are found. During the remainder of the lesson I am going to write on *making wire frames from measurements.* For this lesson use the following measurements, which when completed will make an irregular turban frame.

	Inches
Headsize	23½
Back	½—3⅝
Right Back	½—3⅜
Right	½—3½
Right Front	½—2½
Front	½—3⅝
Left Front	½—4½
Left	½—4¼
Left Back	½—5
Facing Wire	25¼

Edgewire, from right to left, starting at back: 3⅞—8⅝, dent—13¼—18, Front 21½ — 25¼ — 28¾—32¾.

Before starting to make the turban frame I will explain my measurements. These measurements are given as they appear continuously on the tape measure, as is done in the best shops.

What the Measurement Figures Mean

You will notice the first measurement appearing on all the given measurements for the brim is ½, meaning that the wire between the headsize and the angle of the facing is ½ inch in length. Without removing the tape measure from the frame, the measure continues over the ½-inch mark to 3⅝ for the back-brim wire. Similarly the right back wire is bent at ½ inch and the measurement is continued to 3⅜.

In brief, each brim-wire measurement on the turban includes the ½ given for facing depth. These measurements are taken continuous, to save time and labor.

To make the frame, first join the 23½-inch headsize in a ring as explained in the two previous lessons. Then start to measure the brim-wires, as shown in the diagram herewith. Why measure ⅜ inch when the measurements clearly state ½ inch? *Because ⅛ must be added to the ½ inch for winding around the headsize.* Without removing tape measure, dent at 3¾ instead of 3⅝ (as ⅛ inch is also allowed here for wind around edgewire). The 2 inches beyond the given measurement is for leverage in attaching the edgewire. After accurately measuring the back brim-wire as shown by the diagram, mount

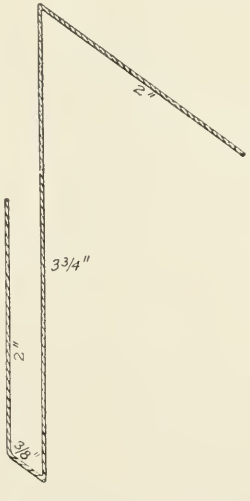


Diagram of Bent Brim Wire

on the headsize. Continue to measure and mount each brim-wire according to continuous measurements given. Use the diagram given for back wire as your guide to proper allowances and the surplus wire left for leverage.

The brim-wires are now placed on the headsize and the dent is made on each wire for the depth of the facing line.

The measurement given for the facing wire is 25¼ inches. Measure accurately 24¼ inches; dent, allow 2 inches for overlapping, join with tie-wire and form into an oval shape. Mark with lead pencil into eight equal parts, showing where each brim-wire is to be tied to the facing-wire. Place the facing-wire on the top or inside of frame.

As this frame is being made from measurements, then measurement must be the guide throughout the hat as to its shape. The slight curving or expressing the line will be done after placing on the edgewire.

Refer now to the edgewire measurements. You will find the greatest measurement given is 32¾. Measure accurately 23¾ inches, dent, allow 2 inches for joining, join in a ring with tie-wire. Start with your tape measure at centre back of edgewire, and measure continuously; without removing tape measure from right to left, mark with lead pencil at first measurement given in the chart, which is 3⅞. This means that the proper place on the edgewire for the brim side-back wire is 3⅞ inches from the centre back.

Now without removing tape measure continue to mark on the edgewire at the various distances given, for the placing of the following brim-wires: 8⅝, right wire; 13¼, right front wire; 18 (meaning that from the centre back to the front of this wire frame is 18 inches), 21½, left front wire, 25¼, left wire 28¾ left back, and 32¾ for the back wire.

The frame is pretty well in shape now, as the continuous edgewire measurements force it to be so. Now curve the brim wires to make a soft continuous line. Turn frame over and measure underneath brim according to continuous finished measurements which are given.

Front to back.....	3—11¼—14
Right to left.....	2¾— 9½—14½
Right front to left back.....	1⅞— 9⅝—13⅞
Left front to right back.....	4—11⅞—14⅝

These front-to-back measurements mean that starting from the edgewire and measuring continuously from the edgewire to the headsize, the measurement is 3 inches; and continuously across the headsize to the brim-wire is 11¼; continuously to 14 is the entire measurement of the finished frame from front to back. The remainder of the measurements given may be interpreted in the same way. The value of finished measurements is in the fact that they test accurately, whether each measurement has been followed *and whether the wires aside from being accurately measured are properly shaped.*

Bracing the Wire Frame

The question as to the proper bracing of wire frames which are to be used as blocks has not thus far been explained as the sailor and mushroom brims were small and would not permit a succession of braces.

The question of how many circular or brim braces are to be used is governed by two things: 1. The preservation of the lines of the frame during the blocking process. 2. The nature of the material to be used in blocking.

Generally, more braces are used on a frame where cape net is to be used than one on which willow is to be blocked, as cape net is a thinner material than willow and unless the frame is properly braced the cape net will sink in between the wire and lose something of the line desired.

On the frame we have just completed I would tie, first a circular brace 1 inch above F wire; another, 1 inch from the edgewire, as the depth of the brim on the left side is much deeper than on the right side. A circular brace should start at F wire and continue around B wire. This brace should be wound around the F wire and the B wire; the space intervening should be divided in half between the two braces already on the frame. All braces should be tied and placed on the inside of the brim wires, so that the imprint of the wires will not be so pronounced on the damp willow.

In large irregular shapes there are often six-

teen brim-wires placed on the headsize instead of eight. The eight additional ones in such cases act as braces running up and down. Measurements are never given for these braces, their shape and measurements conforming to the wires next to them.

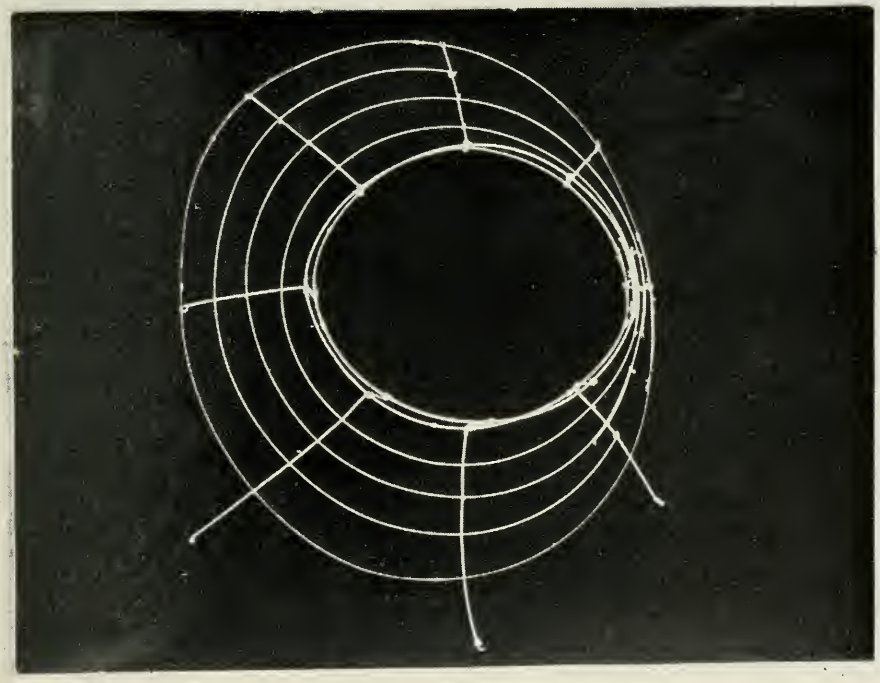
CHAPTER V.

COPYING FRENCH HATS WITHOUT MEASUREMENTS

In the former lessons we have been considering the tedious but necessary rudiments of wire frame-making. However, we have been leading up to the important use of wire frame-making in the other more interesting aspects of the art of millinery. From this point the chapters should be followed by the milliner with intense interest, since it gives her what has never before appeared in print—the actual methods in use in the big Fifth Avenue workrooms today.

EACH month during the busy season the large wholesale houses in New York City import a great number of French hats. Some retailers are able to buy the original models, but the vast number must use copies made up in their workrooms.

This source of vital style is only open to the milliner who can copy and design in wire. The wholesale houses send out notices to the retail shops that on a specified date they will show new French models, their object being both to sell materials to reproduce these French hats, or to sell the original models. On these dates, copyists are sent out from all the best retail shops to make



(Above) Leontine model imported by Judkins & McCormick Co. (Below) Brim frame for blocking this model, the lower half being unfinished, to show how edge-wire can be shifted up and down the brim-wires before being clinched by the final twist

sketches and take notes on the French models displayed. For the purpose of this lesson we will proceed as these copyists do when a new showing is announced.

Through the courtesy of Judkins & McCormick Co., New York, I am able to show herewith pictures of two very beautiful French hats, photographed in their exhibition room. I have chosen these two models because they show the two uses of wire frames in copying French hats.

The first illustration is taken from a Leontine creation. *On this model the wire frame is used as a block over which to stretch cape net.*

The second illustration is taken from a Suzanne Talbot creation, and shows use of a wire frame *as a skeleton for a lace hat.*

I will take notes from the first illustration, as notes are taken by copyists from these original hats.

1. *Name of the designer:* Leontine.

2. *Color scheme used:* Orchid and brown, pastel colors combined with the trimming.

3. *Outline of brim*: Large poke shape—very short in back. (Note—At this time the copyist studies every line of the brim, as, without measurements, she expects to make a copy of this brim in a wire frame, every line of which must be like the original.)

4. *Materials used for covering brim*: Top brim is covered first with orchid taffeta, then recovered with one thickness of orchid crepe chiffon. Facing is covered with brown taffeta clouded with brown crepe chiffon.

5. *Arrangement of brim covering*: Top brim is covered plain, first with the taffeta and second the orchid crepe; material does not extend over brim; edge is sewed, long and short stitch, 3/8 of an inch from brim edge and cut away leaving unfinished edge. Under-brim covering is put on in three parts or flanges; each section is finished with a wire, the first one extends over the edge of hat on top. Brim is finished with a wire 1/2 inch from edge of hat giving the effect of a narrow binding on top; the second flange is about 2 inches from brim edge; underneath, this too, has a wire finish; the third wired flange fills in the remainder of space into the headsize.

6. *Shape of crown*: Rough sketch of outline.

7. *Materials used for crown:* Orchid crepe.

8. *Arrangement of material used on crown*: Crown-tip or top is covered plain with orchid taffeta; this is covered or clouded with the orchid crepe. Side crown is covered plain with taffeta for foundation; the crepe chiffon is then draped around side crown in an irregular drape.

9. *Color and type of trimming used:* Six clusters of orchid wheat, made in rosettes with three small roses in centre, are used as trimming around crown. One cluster of wheat with five roses is used on brim.

10. *Exact note as to placing of trimming*: Two clusters are placed near the front. One cluster is placed near the right side, another near the left side. Two clusters are also placed near the back. A spray using five roses with wheat is placed on

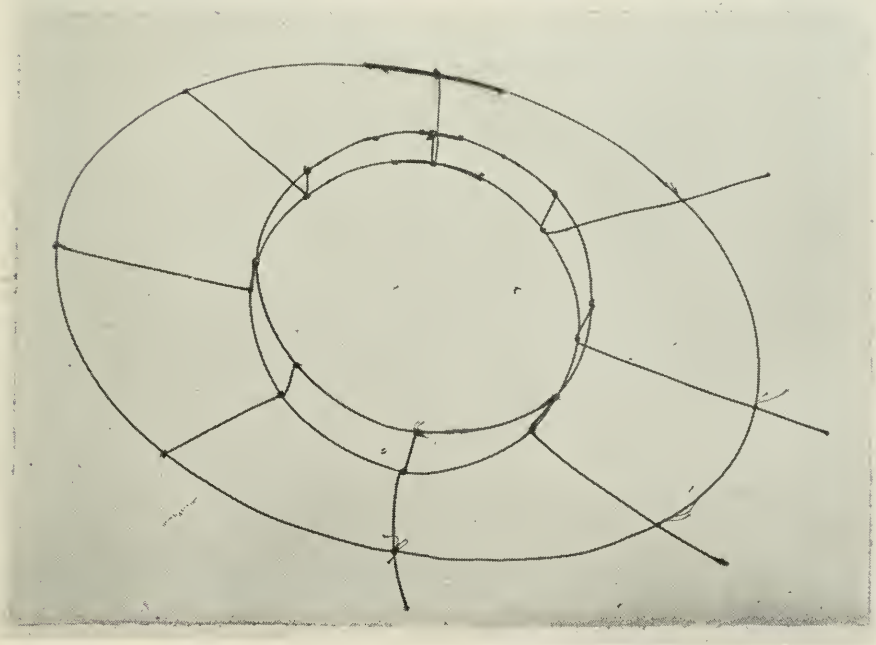
the brim edge at right side to finish streamers, which are made of the two colors used on the hat —orchid and brown crepe chiffon. These streamers are 12 inches wide and may be made any length desired; they are hemmed along side and ends.

After taking notes and sketches similar to these of each hat shown at the opening the copyists and designers return to the various shops they represent and start in the workroom to make them.

The first thing to be done is to make a frame like each of the hats.

In the wire frames made in previous lessons we have had measurements given; this time we are not going to use measurements with the exception of the headsize, which may be made the average size (24 inches).

Experienced copyists start at once on their return from seeing French models to have their help join a number of 24-inch headsizes, then place eight long brim-wires on. These frames are then passed to them and they shape the wires to resemble, as near as possible, the hats they saw. To give the copyist an opportunity for experiment, an edge-wire is usually tied on to the eight spoke-wires, the tie-wire being kept loose so it may be easily adjusted by sliding back and forth to the desired degree. After consulting the trimmer or designer who accompanied her as to whether the line of the edge-wire is right the copyist twists the brim wires into their final places on the edge-wire and passes the frame over



Suzanne Talbot black lace model imported by Judkins & McCormick Co., and its wire frame foundation.

to the maker to be either braced for a block or finished up (with fewer braces) for a lace hat.

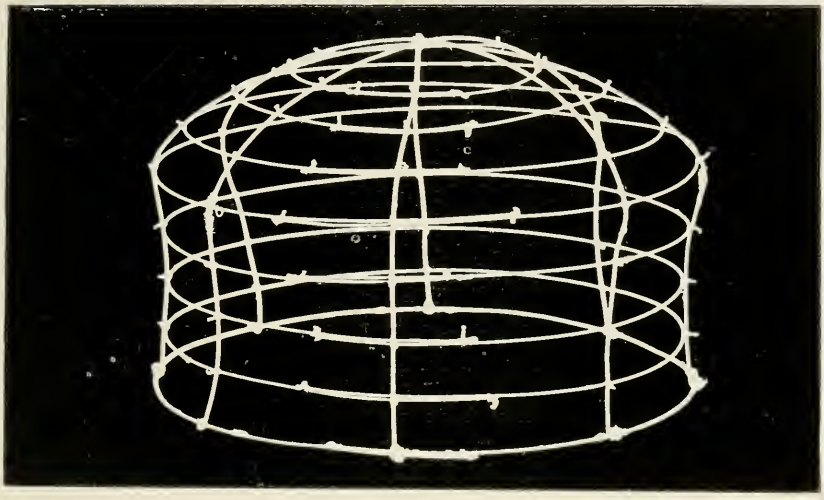
Below the illustration of the Leontine hat is a wire frame of the hat made without measurements as just described. One side of the frame is left unfinished to show the frame under construction. This frame is braced sufficiently to be used as a block for cape net, over which cape-net form the hat is finally made. The crown block of wire illustrated elsewhere is also completed for stretching the cape net.

Wire Frame for a Lace Hat

The second illustration (a Suzanne Talbot hat) I shall not give detailed notes on, my object being to show on the other hat very definitely how notes should be taken by beginners. Experienced copyists and trimmers make very brief notes and carry sometimes a line of fifty hats in their minds until they are able to make outlines of them in wire.

Spoke wires for transparent hats should not be wound over the edge-wire as they are when the frame is used as a block. Instead, the end of the spoke wire should be bent parallel to the edge-wire for the space of about 2 inches and tied with tie-wire. This does away with the bumpy edge caused by winding brim wires on the edge of the frame.

Wire Frame For a Lace Hat



Crown Block to be used for both models.

Below the Suzanne Talbot illustration also is a wire frame (made as before merely from studying the hat, without measurements). This frame is not to be used as a block, but rather as a skeleton frame on which to make the lace hat. The same crown block as used for the Leontine hat may be used to stretch black cape net over for a crown foundation for this Talbot hat. The lace is so loosely arranged on the crown that the slight difference in crown shape can be suggested on the draping. The entire secret of success in making any lace hat is so to adjust the material to the frame as to express style and chic.

Calculating Materials Needed

The amount of shadow lace needed to make this model, can easily be calculated. First measure loosely around the edge of brim. Note that be-

hind the soft lace edge, another row of lace is used to cover the brim both on top and underneath, hence three times the circumference of the edge will give the amount of lace needed for the brim. Twice the circumference of the crown base will give the amount of lace needed for the crown, as one row is not enough to cover the crown.

Two lacquered daisies are placed on the right side brim close to the crown. The one on top of the brim is bronze, the one underneath, on the facing, placed close to the headsize, is a dull jade. On the left side, close to the crown, is one bronze daisy.

It is by the method I have described that hats are copied from designs seen on the street or in magazines. Original designs are made in just this way. So it is not hard to see that wire frame-making is the biggest thing to know, before one can expect to succeed in millinery. Every one must master this foundation work or she can never expect to succeed.

The manufacturers of frames do the best they can to keep up with the styles, but no manufactured frame can take the place of a light hand-made frame, and in the matter of designing, it is out of the question to find frames that can express what an artist designer may have in her mind. Therefore, what I said in the first lesson as to the importance of wire frame-making is true. In the hands of experienced workers it has the same possibilities as clay in the hands of a sculptor.

CHAPTER VI.

BRACING WIRE FRAMES, CHOICE OF BLOCKING MATERIAL

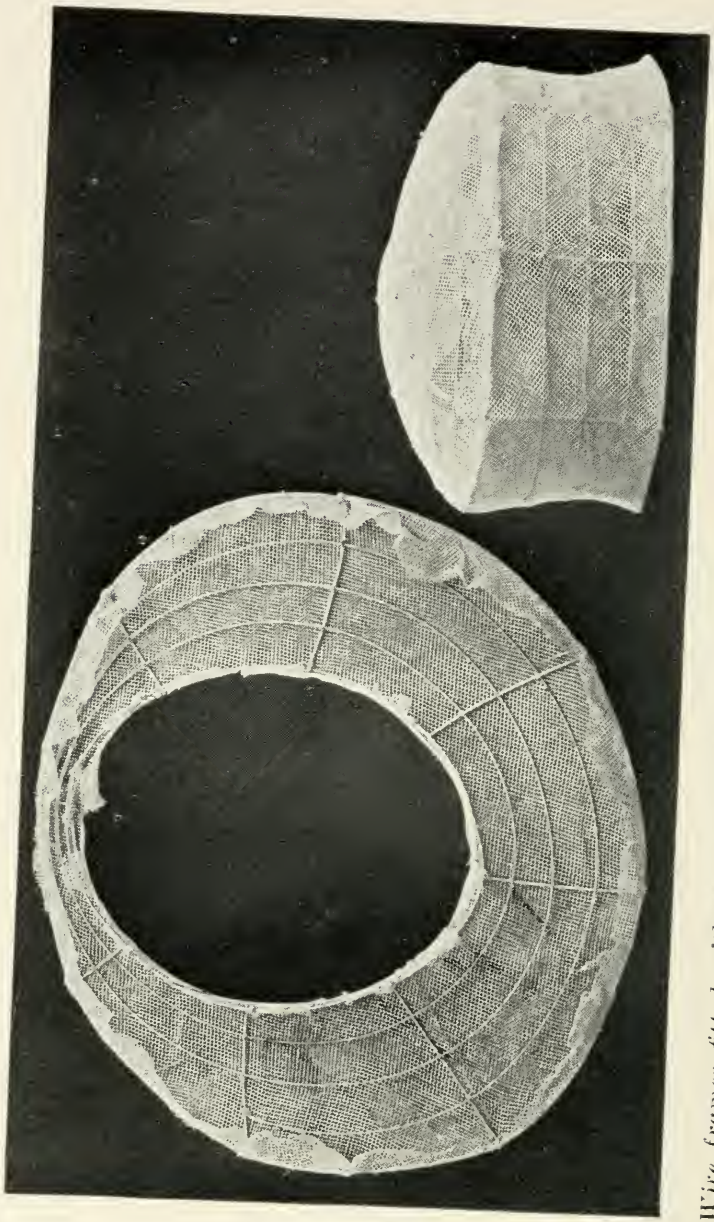
ALL designers and trimmers in workrooms have had the experience, after they have carefully outlined a choice shape in wire, of having the line ruined by a maker either in placing the braces or in using poor judgment as to the number of braces necessary.

You will observe the first brace running around the brim is placed about an inch from the headsize. This is the proper place to start bracing any frame, just as the headsize is the place where you start to make the frame.

If the frame has no facing line the second circular brace should be placed about an inch in from the edgewire, as the edgewire is the line that chiefly needs protection.

The space between the two circular braces should be filled in with as many braces as are necessary, varying according to the size of brim. You will observe from the illustration that the third brace continues around the entire brim and that a fourth brace extends part way around the wide part of the brim and is wound around the spoke wires.

If a wire frame has a facing line the second circular brace should be placed to brace the facing



Wire frames fitted with proper braces for blocking with cape net stretched and pinned on the wire frame

wire and the third to brace the edgewire, as in the course of construction a facing wire is placed on the original frame after the headsize and before the edgewire.

Very often, in bracing large wire frames of extreme line, which are to be used as blocks, aside from the circular braces, eight additional spokes or brim wires are used to brace the frame up and down as well as around.

Great care should be used when placing braces, to see that each brace follows closely the line of the wire which it is bracing, to protect every curve of the original shape.

All circular braces are tied with tie wire *on the top of the brim,* as the damp willow or cape net is stretched *on the facing,* which must therefore be kept free of raised wires.

Bracing the Crown

Bracing a crown is a matter of tying as many circular braces around on the inside as the size of the crown calls for, placing the braces between 1 and 1½ inches apart.

In conclusion, as to bracing, *I should say that bracing is of equal importance with making the original shape of wire.* A wire frame is absolutely useless as a block unless it is strong enough to stretch the damp material on.

In bracing wire frames for lace hats, where the frame is used as a skeleton frame to drape the lace on, as few braces are used as are absolutely neces-

sary to keep the frame in shape. These braces are always placed, according to the design of the lace, under the solid part of the pattern, to avoid showing through.

Choice of Blocking Material

The materials that contain shellac and may be dampened and used for blocking are as follows: Heavy and medium-weight willow and cape net (or rice net, as it is sometimes called). Among the willows are a light-weight willow without dressing, also a heavy crinoline—more like tailors' canvas — that is sometimes used in blocking. These materials are not dampened because they contain no sizing, but are often stretched over a wire frame or are shaped with wiring, or cut from patterns.

I believe the easiest way to show how to choose proper blocking materials is to take the Leontine model illustrated and make it up in every type of material used in millinery.

Cape net is chosen for the frame pictured, as the finished hat is to be made of orchid crepe chiffon. Cape net is the lightest blocking material containing sizing and it also may be tinted to match the material by painting over with a brush with Tintex or any other dye or water color, helping to make inconspicuous when in the hat.

Cape net would also be used in blocking on this frame if the hat was to be made of Georgette crepe.

For organdie, a choice may be made between

using a blocked cape net, or making the hat on a wire frame, best adapted for the brim in this shape as it would be more secure to stretch the heavier materials over.

Cape net is used for blocking all crowns as willow is too heavy. The majority of crowns today are soft. However, some blocked crowns are used. In the Leontine hat, made of chiffon crepe, a blocked cape net crown is used.

Two points today make a hat salable. 1st. *The style of the hat.* 2nd. *It must be light in weight.*

These two points should be considered in the choice of blocking materials. *Effect* is what we desire. Thus it is not infrequent that cape net is chosen for a floppy taffeta hat, or if it were to be stiffer in effect, willow would of course be used. Should one desire a firm stiff effect in a small hat, again willow might be used *because it would best carry out the effect desired,* regardless of the weight of material the finished hat might be covered with. Heavy willow is used where a slick firm frame is desired in a large tailored hat, whether the outer material to be used is satin or velvet.

Undressed willow and heavy crinoline or tailored canvas are often used where frames are cut from patterns—or perhaps either of these materials may be stretched over a wire frame and left pinned on until they take the shape of the frame. The edges of these soft frames are generally left unwired and instead are bound with crinoline to get the soft or collapsible effect desired.

CHAPTER VII.

BLOCKING THE FRAME

AFTER determining what blocking material is best to carry out the effect desired place the brim of the wire frame on your sheet of willow or cape net and cut around, leaving a large allowance for pinning and stretching.

In blocking cape-net frame over which material by the yard is to be fitted two thicknesses of the net are always used. After doubling the cape net and pinning the two thicknesses together so they cannot separate, cut around roughly to allow ample size for frame to be blocked. Place the double cape net in a basin of hot water, completely covering the net. Then quickly remove, without squeezing.

In blocking a shape similar to that already shown, place the corner or bias of double cape net to the front (as that is the deepest part of the brim). Pin the cape net securely to the edgewire for the space of about three inches, placing pins as shown in a previous illustration. After fitting a few inches on the edgewire, fit an equal space on the headsize, cutting the material in the headsize as you fit. In this manner fit the entire brim.

Take great care not to pull the frame out of line or leave the cape net too loose. After carefully pinning look your frame over and see if it is in

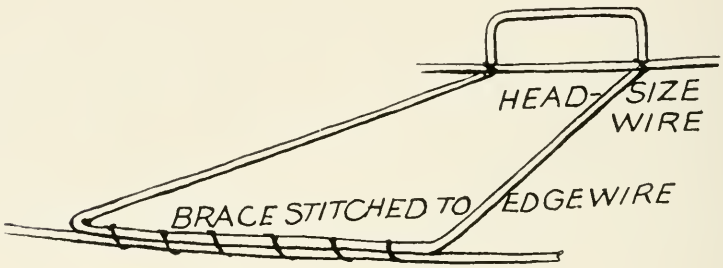
line; if so, hang the brim over the heater to dry. After it is dry pencil-mark the edgewire and headsize line, remove the pins, mark the front and back of frame, and if in stretching the willow or cape net any seams have been made, cross-stitch these together before removing the cape net from the wire frame.

Slip the cape-net frame off the wire frame, taking care to preserve the shape perfectly. Accurately join an oval headsize the exact size of the original wire frame and tack it to the headsize of the cape net frame. *Place the wire on top of the frame if it is to be left in when the hat is completed.* Tack in four places to hold the wire in place; then buttonhole stitch the entire wire in place. Afterwards, if the frame needs it, carefully press with a warm iron; do not trim off the edge of the frame where the edgewire is to go, until after pressing the frame, as in this way it is less apt to get out of shape. After pressing, measure your frame as to size and trim carefully on pencil mark where the edgewire is to be placed. Do not join the edgewire in a ring, as in the case of the headsize, but start to wire from the back, with the wire open. Buttonhole stitch the wire around the edge, taking stitches about a half inch apart.

If the frame turns down, place the edgewire on the under-side, just far enough back to catch the buttonhole stitch taken over the edge. *If the frame turns up,* place the edgewire on the top to keep the frame in line.

Where Extra Braces are Needed

As sailor frames are inclined to spring front and back, the edgewire should be placed on top to help hold the frame in line. The question of extra brace-wires being used on cape net or willow frames is an important one. If a frame has an extreme line on one side, this side should be wired with a fork-shaped brace, as illustrated herewith. The large part of the brace goes next



to the edgewire. This should be carefully buttonholed to the top or to the facing of the frame (whichever side of the frame the shape requires). The brace wire does not stop at the headsize but continues up above the headsize and is joined together. This little extension may be attached to the crown when the hat is completed and thus make a purchase on the brim. As many of these braces may be used as necessary, but if more than two are needed it is best to choose a heavier blocking material for the entire frame, as these braces are apt to show through the material, no matter how carefully they may be covered with crinoline or tarleton.

Where Extra Braces Are Needed

Willow is placed or pinned on a wire frame the same as cape net, *except that only one thickness is used,* as willow is smoother on one side than the other. Care should be taken to place the smooth side of the willow on the most conspicuous side of the hat.

In stretching small shapes of willow or cape net, bias strips of the blocking material will stretch and fit to better advantage than straight material, and require less willow or cape net.

Crowns may be blocked by placing a double bias strip of cape-net around the side-crown, pinning it to the edge and top side-crown wires, with a small piece of cape-net covering the tip. Or they may be blocked by placing a square of double cape net over the entire crown, pleating the cape net flat around the side crown, and cutting the surplus cape net out from under the pleats. When the cape net is dry remove the pins, mark the edge or base of the crown and remove from the block. If a separate piece is used for the tip, cross stitch this piece to the side-crown before removing the cape net from the wire frame.

After the blocked net is removed, join a wire on a ring the size of the crown base, and button-hole-stitch it to the lower edge of the crown. Press carefully, and crown and brim are now ready for use.

Blocking materials which have no dressing or sizing are handled, so far as stretching and pinning are concerned, the same as dampened frames,

the only difference being in the wiring. The frame is often bound with crinoline instead of being wired, as hats made of undressed willow or crinoline are generally collapsible and do not require a brim edge.

CHAPTER VIII.

CALCULATING MATERIALS

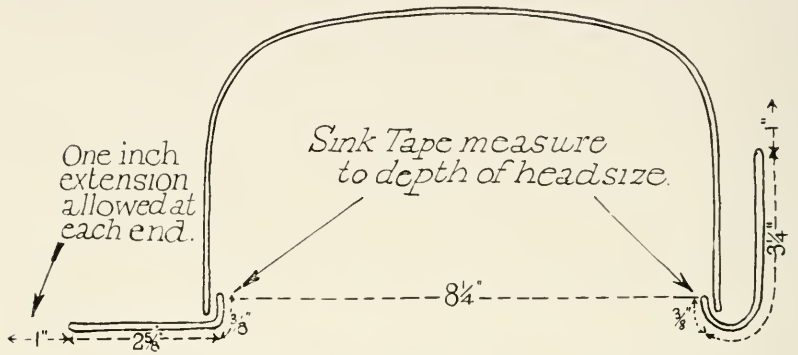
THERE is probably no question oftener asked by students in millinery classes than, "How much material shall I buy for my first hat?" In workrooms where there is an abundance of material the question as to the amount of material needed for a single hat must be as carefully decided as where one is buying for a single hat. The stock girl who cuts the material and gives it out for each hat is frequently careless about wasting material.

I have been surprised to find that many students of millinery who have had trade experience calculate for the amount of material needed for individual hats merely by measuring across the frame from front to back, allowing two inches for overlapping and sewing. This measurement is then doubled (to provide for the top brim), a quarter of a yard is added for crown tip, and a quarter of a yard on the bias is purchased for the side crown.

I most decidedly take exception to this procedure on the ground that the width of the brim to be covered plays an equal, if not greater, part than the length in calculating material. This measure-

ment should determine the width of material to buy.

If you will look at the illustration below I am sure it will be clear to you how to measure and calculate for material to cover the brim.



How to measure for brim-facing material. The dotted line represents the tape measure. The hat should be measured in the same way from side to side and front to back

You will see from the illustration that the brim is measured on the underside. In measuring from front to back, a tape measure is started one inch beyond the front brim and continued along the frame until the headsize is reached. At this point the tape measure is turned down into the headsize as far as the upper headsize (as the fitting of material must be carried to upper headsize). Then carry the tape measure straight across to the upper headsize at the back of the hat. Here it is again brought out and continued to the outside edge of the back brim and one inch beyond. Measure frame from side to side in the same manner. At this time also observe measurements of crown tip from front to back, and from side to

side. With these figures you are ready to calculate the needed material.

Material for the brims of large hats is bought on the straight; crown tips are also made from the straight material. Therefore, we will add all our straight measurements together.

Let us say that the brim is 17 inches from front to back and 21 inches from side to side; and that the crown tip measures 9x11 inches.

As the facing of the brim on a hat measures the same as the top, doubling the amount in length gives the length necessary for top and facing of brim. The facing of the hat in question measures 17 inches from front to back; doubling it gives us 34 inches. The crown tip measures 11 inches front to back. Therefore our calculation for length of material needed will look like this:

Brim covering (top and facing) . .	34 inches
Crown covering	11 inches
	45 inches

The length of material required, therefore, will be 45 inches.

Calculating Width of Material

Before considering the measurements as to the width of brim and tip, I should like to give a table of the different widths of materials that may be purchased at the wholesale and retail stores, so that we may judge intelligently which width will

cut to best advantage for the measurements given:

Velvets ..... 18, 22, 40 inches wide
Duvetyns and Velours. 18, 22, 40 inches wide
Satins and Taffetas..... 36 inches wide

The brim width given above measured 21 inches from side to side and the crown tip 9 inches.

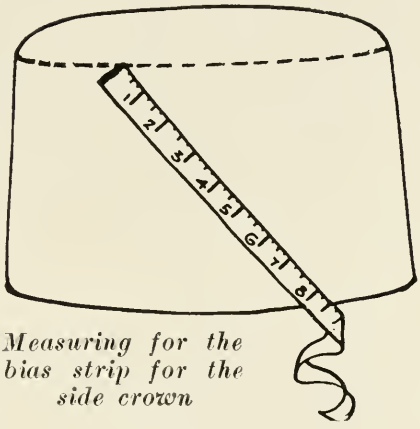
If you could purchase velvet the color and quality desired from the scale of widths you could readily see that 1¼ yards of 22-inch velvet would cut very economically. But exactly the right material cannot always be found in the width desired. Suppose you wanted a special shade in a velour and found it only in the 40-inch material; it would be equally as accurate and perhaps less expensive to buy half as much in length, knowing that the top and facing of the brim could be safely cut from this extra width.

Calculating Satin or Taffeta

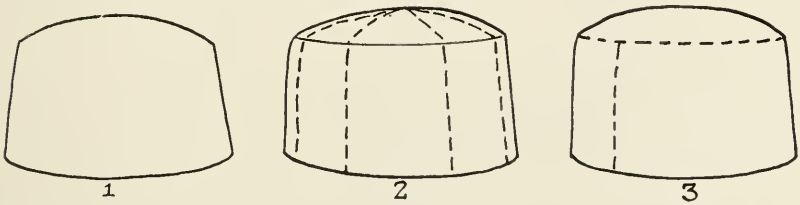
Suppose you desired satin or taffeta for this same hat. The width of satin and taffeta is generally 36 inches. With the velvet we were cutting so close in the width that it was necessary to buy an extra ¼ of a yard for the crown tip. In the case of satin or taffeta you would have left from the width of a yard of satin or taffeta, after cutting material for the brim, a strip 15 inches wide and one yard long. Thus it would not be necessary to buy the quarter of a yard extra for the crown tip.

Measuring the Side-crown

Thus far we have not considered the side-crown measurement. You will notice from the diagram herewith that the side-crown measurement is taken on the slant. The reason for this is that separate side-crown material is used on the bias. If the measurement were taken perpendicularly the bias strip would not be wide enough, as you cannot purchase velvet through the bias, but must have the selvage measurement. The side-crown illustrated measures 8½ inches on the slant, and we will say the circumference measurement at base of crown is 26 inches. Therefore a strip 8½ inches wide and 26



Measuring for the bias strip for the side crown



Three types of crown covering. (1) *Material in one-piece steamed to the shape of crown.* (2) *Sections sewn together.* (3) *Side crown and tip covered separately*

inches long is needed. The length of bias strips is entirely governed by the width of the materials. By testing materials it has been proved that bias increases in length one-third of the width of materials.

Thus the 22-inch material we selected in velvet would be the right width to produce a bias long enough to drape around the crown. The strip from the 22-inch material would be 29 1/3 inches long. As the crown was 26 inches in circumference, the allowance for drape and joining would be ample.

As velvet is the only material one can buy bias, it is necessary, when the side crown is to be made in any other material, to buy a half yard extra on the length, so that you can make your own bias.

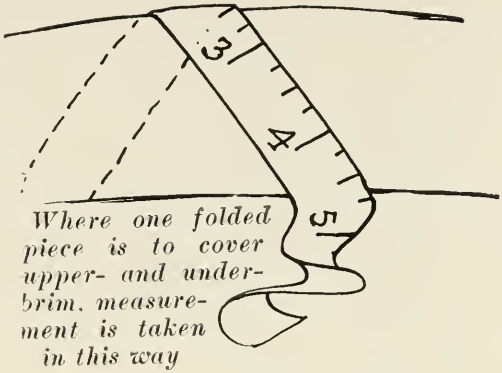
For Different Types of Crowns

In buying material for crowns where the entire crown is made in one piece, as, for example, in the new steamed crowns (see Figure 1), measure from front to back and side to side, starting at base of crown and measuring across the top to the base at the other side. Material for this type of hat should be bought on the straight.

When the crown is to be made in sections set together with unfinished cords (see Figure 2), it is necessary to buy ⅛ yard of velvet on bias for cord coverings. The small pieces for the sections of the crown may be safely cut from pieces coming off the sides in fitting.

Another Type of Brim Covering

There are a vast number of hats in which the top brim and facing are all made in one by using a bias strip, stretching it through the centre over the edge of the frame and pleating the fullness in at the headsize. In this case the covering of the brim is, of course, bought on the bias, the measurement for materials is taken as shown in illustration herewith.

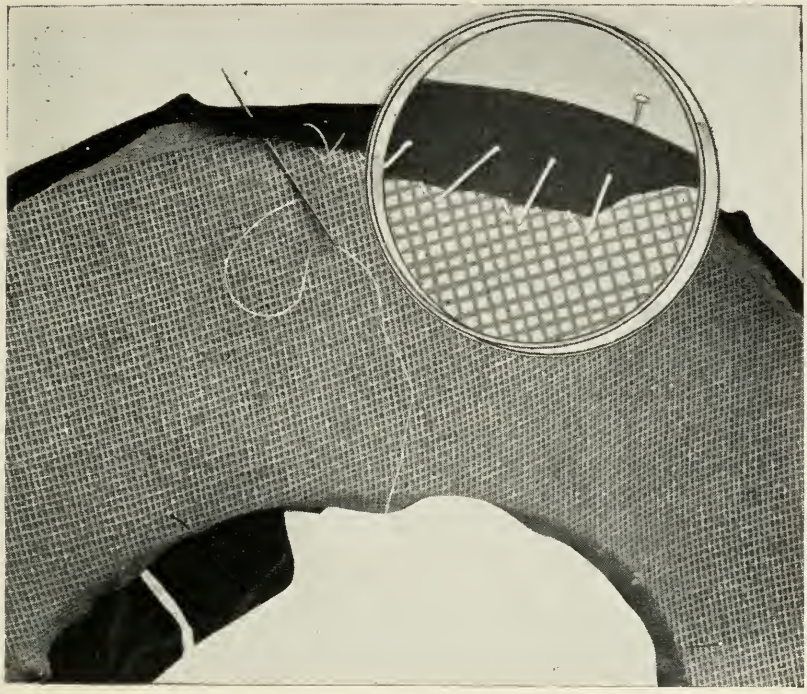


Where one folded piece is to cover upper- and under-brim, measurement is taken in this way

In this case the circumference of brim is to be considered, as it is best to buy material wide enough so the brim covering has but one joining. If material cannot be bought in the color and quality desired of a width great enough to make long bias strips, a piece of material twice the depth of the brim top and facing must be purchased, as a part of the second strip is for the brim.

The method for measuring, where hats are made with flanges and sectional facings, is the same. Stated briefly, it is this: *In calculating for straight material, see how many times the measurement you have taken from your hat goes into the width of your material. For bias, measure*

on a slant for the width of your strips, and also measure the circumference of the surface to be covered. In computing material needed, remember that each width material will produce a strip one-third longer than its width.



Under-side of the partly completed brim. The magnified circle shows the cross-stitch by which the velvet is stitched to the cape-net. At the headsize, two of the slashed sections have yet to be cut off

CHAPTER IX.

PRINCIPLES AND METHODS OF FRAME COVERING

IN making and covering a willow or cape-net frame the process should be as follows:

1—*The top brim should be covered.*

2—*The crown should be made and sewed on.*

3—*The facing of the brim should be covered.*

I know that while some Fifth Avenue work-

rooms follow this method in constructing a hat, others cover the top and facing of the brim first and then, the last thing, slip-stitch the crown on. *Let us think for a moment which is the better way.*

Is it not the *line* of every hat we must protect throughout its construction? All modern hats are braced or wired as little as possible; if the crown is made and sewed on to the brim after the top of the brim is covered, *does it not protect the line of this hat as no other method of construction could possibly do?* Then, too, one can study the effect of the finished hat far better if the crown be made and tie-tacked on before the under brim is covered. *Do not our French designers daily teach us that crowns should be as carefully studied as the outline of the brim itself?* Often these crowns are much larger in the headsize than the headsize of the brim. If the facing of the hat is already covered it is not possible to securely tack the crown to the brim. It could be done only by slipstitching the base of crown to the top-brim covering, which, if the material were pasted, as it often is, would not alone loosen the top covering of the brim; but the entire weight of the trimming of the hat, each time the hat was adjusted, would pull on this top-brim covering.

Crown and brim should blend together to make a perfect creation. But one often sees a hat where the crown and brim seem like two distinct factors, looking very much like a house that has had an upper story added after its completion. In the first case, *the crown is made and sewed on*

before the brim facing is covered. In the latter case, *the crown headsize, though perhaps larger than the brim headsize, is forced in small enough so that the crown may be sewed in the same place as the headsize of brim material was sewed, then a ribbon or a fold is usually used to fill in to cover up what in reality is botch work in putting the hat together.*

Agreed on this point, let us proceed to place, fit and pin our velvet to the top brim.

Let us use mirrored velvet for this plain sailor hat. In considering the question of placing materials on the frame we will use mirrored velvet because it has an added feature to consider—that of the direction of the nap as well as the proper placing and fitting. Perhaps it would make it easier for those of you who have not had much trade experience, to think of the placing of materials on frames as you think of laying commercial patterns on dress material. In other words, we are going to place the velvet on the frame with two points in view—first, to give the hat, when finished, the effect desired; second, to cut our material as economically as possible.

There are just two groups of hats to consider in thinking of fitting materials. *Sailors and slightly irregular shapes come under the first group.* They can be fitted without any seam or joining in the top-brim covering and the facing as well. In other words, the fullness may be fitted out as one pins the velvet on. *In the second group come all the irregular shapes, where it is*

While the velvet is yet pinned to the edge of the brim, the pinned headsize is sewn, with the long-and-short stitch.

(Left) How the slashed headsize sections are pinned to the frame, preparatory to sewing

impossible to fit the fullness out. In this case a joining must be used.

Covering Plain Sailors

In the first group, covering plain sailors or slightly drooping shapes, what is the best way to place and pin velvet?

The illustration shown is the brim of a drooping sailor hat.

For all-sailor or slightly drooping hats, where the material may be fitted without a joining, the material should be placed with the straight of the velvet to the front, back and sides, with the nap running to the right as you hold the front of the hat towards you. I realize that many in the trade and elsewhere will take exception to this, and say

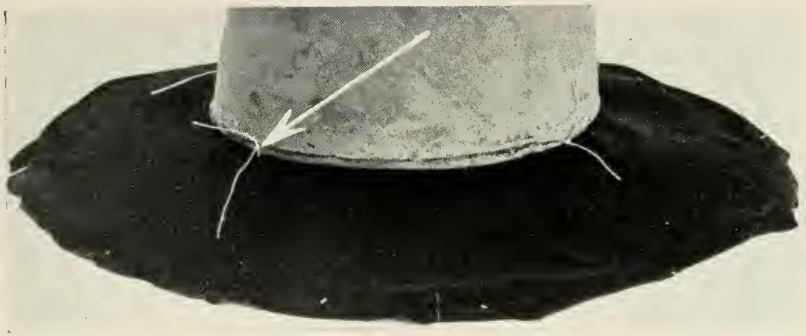
the bias of material should be placed to the front with the nap running to the back. In my first days of handling materials I also believed this to be true. I have since found it better to place the straight of material to the front when fitting any hat where one is trying to avoid a joining, because *if the four main points of a hat are the front, back and sides, and the straight of the material is pinned at these four points, at least they are fitted without accumulated fullness, as the straight cannot stretch.*

Before starting to fit the straight of velvet, be sure to remove the selvage. Then pass your hand over the velvet to see that the nap rubs smooth away from you or to the right.

Place your velvet over the frame, allowing an inch margin on all four sides. Start to pin at front edge of brim, sticking the pins in straight. Do not darn pins in, as this will mar the velvet. Stretch the velvet securely straight across from front to back *without pinning at the headsize.* Pin in back, then proceed to pin the right side; stretch firmly across to left side and pin. Without cutting headsize, pin and stretch from side fronts to side backs. At this point trim your velvet around the edge of brim, leaving a margin of one inch all around. Also cut an oval piece out of the centre of your velvet, which is fitted tight across the headsize. Slash down to the headsize wire and pin as shown in illustration.

Then start to sew the brim covering at the headsize, as shown, using the long and short stitch,

with long stitch on the material side, as shown in illustration. This pulls in the material and changes the circumference of the material, so you must again trim down the edge of brim, leaving ½-inch margin all around. Cross-stitch edge of velvet to frame, using great care to make this finish flat and the stitches of equal depth so an even line may be used when sewing the facing covering on. You are now ready to attach the crown.



The crown tie-tacked in place, ready to be stitched on. To make the tie-tack, simply insert the needle through the edge of the crown material, then up through headsize edge of the brim material. Then remove the needle and tie in a knot. This is done front, back and sides, to hold the crown in place

CHAPTER X.

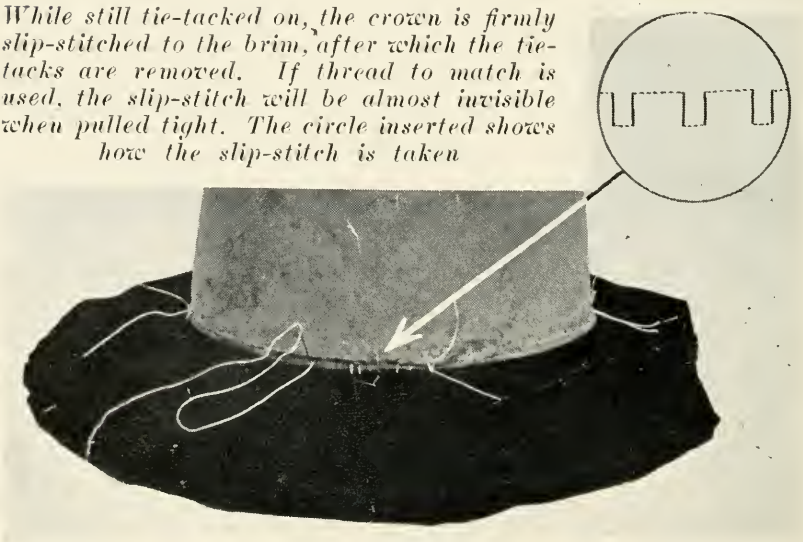
COVERING AND ATTACHING THE CROWN

THE crown should now be made. I will use first the simple crown that has been, and is still, in vogue. In many of the modern hats the crowns are made soft, without foundation. If desired, a narrow cape-net piece is joined in a ring and wired on the lower edge. This piece is used to support the crown at the base. After the crown has been made of the material it is slipped over this narrow oval piece and cross-stitched to the lower edge.

The first crown I will describe is made with a separate tip and side-crown. The question may be asked, how is one to know what shape to cut

the material when no crown foundation is used? If the headsize of the brim is 24 inches, a good proportion for the crown headsize is 26 inches. Cut a strip of velvet on the bias the desired length. The width of the strip is determined by the effect desired for the side-crown—whether it is to be plain or draped. The tip of the crown is cut oval in shape using a circumference the same as side-crown. Sew tip to side-crown on wrong side. Be sure nap of crown-tip and the straight of the material are placed to run the same as top-brim covering. If foundation is used under crown the lower edge of velvet may be turned up, flat hemmed. A wire may be run through the hem to support the base of the crown and make it easier to sew crown on brim.

The crown is now ready to attach to the brim. Mark the front, back and sides of the brim with



While still tie-tacked on, the crown is firmly slip-stitched to the brim, after which the tie-tacks are removed. If thread to match is used, the slip-stitch will be almost invisible when pulled tight. The circle inserted shows how the slip-stitch is taken

pins; mark the crown in the same manner; place the front of the crown opposite the pin marking front of brim; pull well down on brim and tie-back in four places. (See illustration.) Tie-tacking is to millinery what basting is to dressmaking. Aside from its use in permanently tacking a drape it is used as basting, a preparatory stitch to hold material in place, until the final sewing is made. After tie-tacking crown in place, slip-stitch crown to brim. There is no stitch in millinery more often used than the slip-stitch. It is the shape of a Roman key and may be made any length desired so long as each stitch is directly opposite the last stitch taken. (See illustration.)

Before putting the facing on this last hat I should like to show two other types of crown that might be used as to the placing of the materials and the way to complete the crown.

One of the most valuable pieces of equipment I have ever seen to aid in making and blocking crowns of all shapes where the crown is made of one solid piece of material is a copper net crown made in all the leading shapes. After pinning the material with the straight to the front, back and sides, the crown may be held over a steam kettle—either a kettle as used at home or the kettle that comes with the complete equipment. After letting the steam filter through the crown with the material pinned on, it is easy to stretch.

After stretching all fullness out, unpin from crown block, trim for ½ inch margin, wire a small cape-net piece two inches wide, and join

in a ring of the same circumference as the crown is to be. Cross-stitch the velvet at the crown base over the cape-net ring, thus making the crown secure at base.

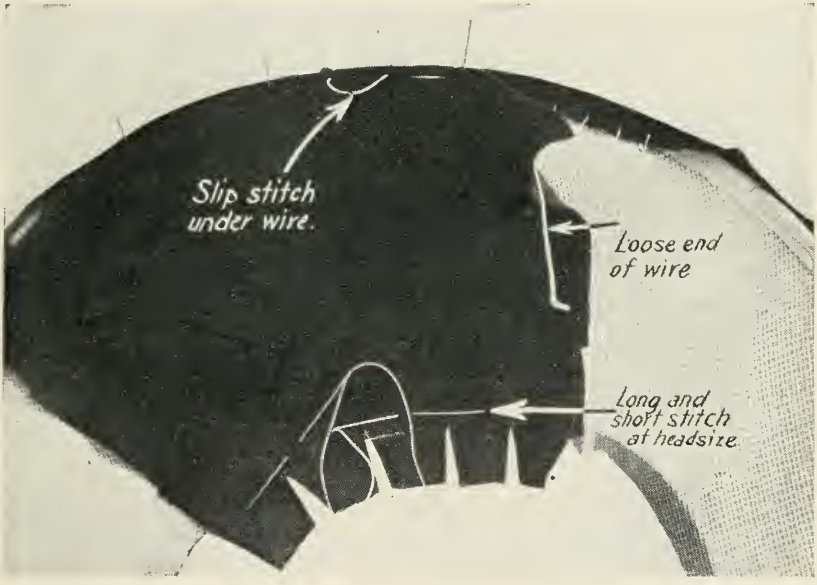
This method of placing and steaming of material may be used for satins, taffetas, velours, organdies, Malines, nets and laces. This copper porous crown-block is superior to anything in the way of a block the trade has ever shown and is better in every way than a wire crown as made in workrooms, as the imprint of the wires is bound to show through if the damp material is stretched tight enough over the frame to stretch fullness out.

In placing material for making crown in sections, first determine the circumference of crown at base; then decide how many sections are desired to make the effect the design calls for. If six sections are to be used divide your crown circumference into six equal parts, measure off on a crown block, which may always be found lying about, the number of inches one of your sections calls for, take a corner of tarlatan, cut the shape of 1/6 of your crown foundation from this bias corner of tarlatan, remove this from the crown block and use for a pattern. Allow for seams when you lay the pattern on the velvet or satin. Cut six or eight sections, as desired. Seam these together on the wrong side, either using an unfinished cord, or, if preferred, join sections together, without cords. Turn in crown material at base, tie-tack crown to brim, and slip-stitch on.

CHAPTER XI.

FACING THE UNDERBRIM

OUR hat is now ready for facing. Place velvet on the facing with the straight to the front, back and sides, with the nap running the



Here a section of facing is partially fitted on. The long and short stitch is being used at the headsize, and the wire finish is being sewn on the brim-edge, with a slip stitch. When pulled tight, this stitch is invisible. Of course, the thread should match the material

same as the top. Pin front, back and sides, side fronts and side backs the same as the top brim covering. *Do not pin headsize.* Care also should be taken not to pull velvet so tight as to get the hat out of line. After carefully pinning edge as described cut out a small oval from headsize; slash down to headsize line and sew headsize with long and short stitch. (See illustration.) Trim velvet around the edge of brim, allowing a ¾ inch margin.

Finishing Edge With Wire

As the wire finish is one of the best ways to finish a facing for a tailored hat, we will consider that method of finish. Turn edge of velvet over a piece of frame wire and pin both firmly in place at the edge of the brim. Then, using the slip-stitch, sew wire in facing, as shown in illustration. *It is best not to join wire in ring when pinning.* Leave wire open until the slip-stitching is nearly completed, then join wire with a clamp. Clamps are small fasteners that slip on the end of two unfinished pieces of wire, joining wires in a ring. They are used in millinery wherever two unfinished ends of wire must be joined in a ring. These clamps may be purchased at any millinery wholesale house.

After completing the slip-stitching of wire in the facing, the hat is properly covered and ready to pass over to the trimmer.

If pleated taffeta, unfinished cords or any kind

of fancy material are used either to introduce color or soften the edge, these are usually basted to the facing of brim, *before the facing is turned in on the wire.* In this way, all kinds of original ideas may be introduced in the way of trimming on the edge of a hat; the facing is almost invariably brought up on a wire to finish the edge If a softer effect is desired on the edge of the hat, an unfinished cord may be basted on the facing. In this case the facing is not turned in on a wire but is turned in and slip-stitched without a wire.

These two ways of finishing a facing cover all one need to know, as all other finishes are a variation of these finishes. The tulle edge sometimes used on the edge of hats does not come under the head of these finishes. Wide soft edges also come under a different group and will be described in another chapter.

We have carefully considered the placing, fitting, pinning and sewing of hats where the material may be fitted on without a joining.

The principle is this:

For all flat or slightly irregular shapes do not work fullness around to one place, but pin front, back, sides and diagonals, keeping fullness confined in the section where it belongs. It is easier to avoid accumulation of fullness if headsize is not pinned, as the slight sinking in of velvet pulls the fullness in a place where it is hard to avoid slashing too low for headsize sewing.

We have used a mirrored velvet for this example, because mirrored velvet deals with nap

shading, light and dark. In using other materials such as plain velvet, velours, satins, taffetas, organdies, ginghams, Georgette crepes, etc., the question of placing, pinning and sewing would be the same except as to the preparation of the frame for covering. Any material where the frame does not show through should not be interlined. Satins and taffetas usually need some preparation for the frame before covering. Mull, tarlatan or China silk may be used to cover frame before putting outer covering on.

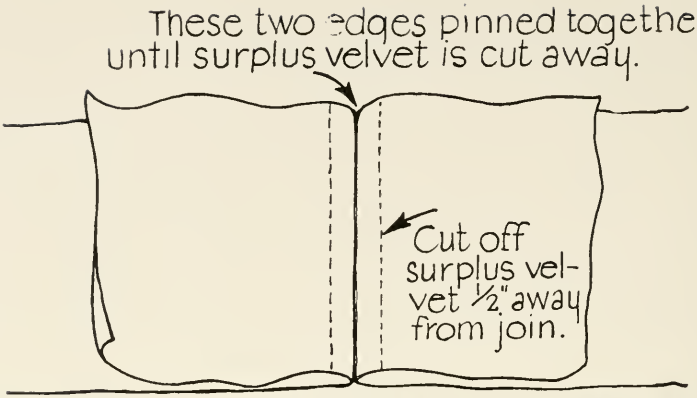
For all kinds of hats where frames must first be prepared, the top of a brim should be prepared and then the outer material used. The crown should then be prepared and its outer covering put on. The crown should be sewed on before the facing of the hat is prepared for outer covering. This method is far better than preparing or interlining the whole frame and then putting all the outer covering on, the advantage being, when preparing and finishing step by step, the last interlining covers all stitches and imperfections of all the preceding sewing. As this interlining serves two purposes—that of making a perfect surface to fit over and of covering all preceding stitches, it is clear this is the only method that is practical.

CHAPTER XII.

FITTING VELVET HATS WITH A JOINING

IN the previous lesson we have found how to place, hem and sew the material, be it velvet, duvetyn, satin or taffeta, *on a hat where the material may be fitted without a joining.* We found in this lesson that the principle of placing material on flat or slightly drooping hats was as follows: Place the straight of the material to the front, back and sides, pin at these four main lines of frame, and keep the fullness of material confined in the section to which it belongs—in short, do not push fullness, as it will accumulate at one place on the brim, so that a joining must be made. This method of fitting and pinning will always apply to flat or slightly drooping hats where material may be placed on without a joining.

Let us see what the difference is in placing and fitting material on a frame that is irregular in shape and in which the fullness of material cannot be worked out. As you look at the illustration shown you can readily see that it would be impossible to place a straight or bias piece of velvet on such an irregular shape without joining the material. Let us see how to place the material, as to the straight or bias, and where to make the joining. Here again I deal only with principles which will cover the fitting and covering of irregular shapes as long as hats are worn.



How to dispose of the fullness gathered at the joining and how to make the joining. The cut below shows the hat with the fullness gathered at the back, where the join will be. When the stage of making the join is reached, pin velvet together at the point of joining. Cut through the fullness so that it may be folded back in two halves against the hat leaving the inside of the pinned section exposed. (See sketch above.) Then cut away the surplus velvet ½ inch from the pinned folded line. Then turn both edges under at the line marked by the pin, leaving a little of the frame exposed so the material will be stretched tightly at the joining and slipstitch together

Fitting Velvet Hats With a Joining

We have learned that the top brim should be covered first; second, the crown made and sewed on; third, the brim facing should be covered.

The Proper Direction for the Nap

As the top brim is the first surface to cover let us see how velvet should be placed on this surface. I use mirrored velvet for this hat, as mirrored velvet has all the extra problem of nap, which makes it the hardest material to handle. The lesson on placing material on flat hats explained that the straight of the material was placed to the front and that the nap runs toward the outside of brim rubbing smooth from one edge of brim to the other across the front. In other words, if the front of the hat was toward you the nap of properly placed material would rub smooth to the right straight across the entire front of hat, from left side to right side. In placing velvet on the shape shown, the true bias or corner of straight velvet should be placed to the front with the nap running diagonally toward the back. Run your hand diagonally over the mirrored velvet and see that it rubs smooth toward the back. It will be seen that the principles of pinning, cutting and fitting is just the reverse of the same work on plain hats, which do not require the material joined on the brim.

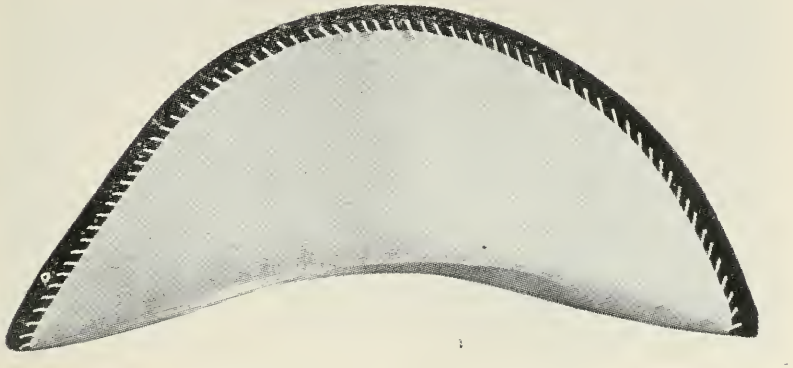
First determine where joining is to be made. Joinings are always made where they show the

least, or where trimming will best cover the joining. In this hat the trimming would not aid in concealing the joining. As the back is the narrowest place on the brim that is the place to join the material. Always keep two things in mind when starting to fit material by the yard on any irregular shape: first, where the joining should be placed; and second, how to place the material.

Place the bias corner of velvet on the most difficult part of brim to fit. In this hat, with the bias to the front, it is easy to shape the bias velvet out on both the wide sides shown. In some hats it is best to place the bias across the back. and in others to the side, varying according to where the extreme line of hat comes. Start to pin the velvet by sticking pins in as shown on illustration. Pin a short space on the edge, push the velvet down toward the headsize until you reach the line of the headsize. Then cut and slash the headsize as shown on illustration. Fit perfectly, little by little, both the edge and headsize as you go, *pushing all accumulated fullness toward the back.* After starting at the front and fitting, cutting and pinning velvet on the left or right side of hat, start at front again and cut, fit and pin the other side, working all the fullness on the side to the back. You will now have quite a piece of velvet standing up at the back. (See illustration).

Before cutting this surplus fullness out for joining headsize with long and short stitch (as shown in the last chapter, in the illustration for

The Proper Direction For the Nap



How the velvet is cross-stitched to the frame after being pasted and trimmed down

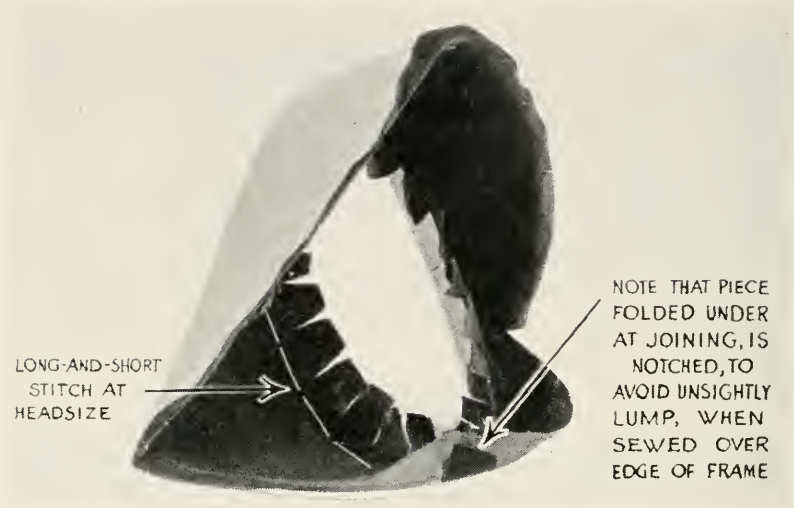
making a plain hat) start sewing about two inches away from the joining, leaving room for arranging the joining later.

Gluing the Velvet

After sewing headsize within two inches of the joining at the other side, removing pins from the edge of the velvet at the front of the hat, cover this section of the frame thoroughly with milliners' glue, lay the velvet back on the surface covered with glue and press firmly to the frame. Continue to remove pins in sections around either to the right or left of the front, covering each successive section of the frame with glue and pressing the velvet back on the frame.

In pressing the velvet on the glued frame, use a piece of velvet instead of fingers, to avoid making finger-marks.

After carefully pasting every part of the brim to within two inches of joining on each side, trim


LONG-AND-SHORT STITCH AT HEADSIZE
NOTE THAT PIECE FOLDED UNDER AT JOINING, IS NOTCHED, TO AVOID UNSIGHTLY LUMP, WHEN SEWED OVER EDGE OF FRAME

Velvet fitted to the frame, ready for gluing

the surplus velvet along the edge of the hat, *allowing one-half inch for cross stitching over the edge.*

Never cut velvet on edge of frame until after pasting. Many hats are ruined by cutting what seems like an ample margin, but after pasting, the material works down and leaves no material over the edge, thus spoiling the hat.

After trimming down, cross-stitch velvet over the edge within two inches of joining on both sides. (See illustration.)

WHY JOINING IS LEFT TO THE LAST

The reason it is better to complete the pasting and even the cross-stitching of edge, before making the joining in the back, is that in pasting and sewing there is bound to be extra fullness worked

out and if the joining is closed the last thing, all fullness can be pushed into the joining and thus a perfect fitting is made.

Making the Joining

To complete the joining at the back, first mark with a pin the exact line where the two edges of the velvet come together on the hat at the fullness. Then cut the fullness through the centre, fold the two ends, thus made, back away from the pinned folded edges, then cut away all the velvet on both sides ½ inch away from the pinned edges. (See illustration.) This is the only safe way to cut for joining, as one can see just what seam allowance one is making.

How to Make Joining Tight and Invisible

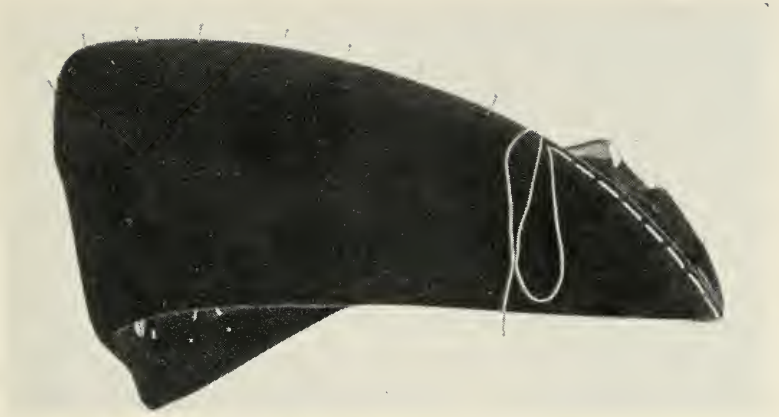
Next, turn both edges under at the line of the pin. *In turning under these edges leave them far enough apart so you can just see the frame underneath* (*meaning a space of about a sixteenth of an inch*). Then start at the headsize to slip-stitch the joining. As you catch first one side and then the other and pull thread tight, the slight space of 1/16 inch is filled. If properly slip-stitched, the joining will be invisible.

Next, complete the sewing of the headsize at the point near the joining where it was left unfinished.

The cross-stitching of the velvet at the edge of

the frame where the joining occurs is still to be completed. Before doing this, cut away part of the folded-under portion, as the join will make an unsightly lump on your brim edge if sewed double-thickness.

The top of the brim is now completed. Any crown may be used on this hat. The method of making and covering crowns was shown in a former lesson. The crown of this hat should be placed so the joining of the side crown is in the extreme front, as the brim is so deep the joining of the crown would be hidden by the depth of the brim in front. After (not before) making the crown and sewing it to the brim, the facing should be covered.



The picture shows the facing pinned in place and partially sewn. Of course, in practice this would be done with black thread, which would be invisible when pulled tight

CHAPTER XIII.

PUTTING ON THE FACING

IN facing the brim the velvet must be placed exactly the same as it was when fitting the top. The nap on the facing should rub smooth from the headsize to edge, so that the blending of the nap will be perfect on the edge. Always pass the hand over the velvet after placing the bias for facing, to make sure the facing nap not only runs the right way, but runs diagonally to the right or left whichever way the top of the brim runs. In passing the hand over velvet it should rub smooth, one continuous line from the headsize facing diagonally across the brim-facing, over the edge of the hat to the back of the top brim-covering.

The method of fitting, pinning and sewing the facing is exactly the same as the top covering, *with one exception.* The outside brim-covering will not need pasting except in a few places where the velvet will not cling to the frame. (Where the frame happens to be dented, for example.) Pasting makes a hat set-looking and should never be used unless the material between the head-size and edge wire after fitting will not stay flat to the frame. The fitting, slashing, pinning and sewing of all irregular shapes are done this same way. For all other velvets, except the mirrored or panne, there would be no nap to look out for.

Facing With Satin or Taffeta

If this same shape were made of satin or taffeta it would be necessary to cover the frame with tarlatan before using satin or taffeta on the outside. *The tarlatan should be fitted on as carefully as the outer material.* In preparing frame with tarlatan prepare top brim first. Fit, slash and pin tarlatan the same as outer material. Sew headsize the same. Instead of *cross-stitching* tarlatan over edge sew it with the *long and short stitch,* binding the tarlatan over the edge. Sew with the very short stitch on the right side or top, as the imprint of the long stitch, if this were on top, would show through the satin or taffeta. After preparing top of brim, cover with the velvet. Make the crown and sew it on the brim before you go on to the next stage—prepar-

ing brim *facing* with tarlatan. After sewing on the crown, cover the *facing* with tarlatan. Sew in the headsize first. Let unfinished edge of the tarlatan come up just over the cross-stitched velvet where the velvet was drawn over the edge to the facing. Run the tarlatan along the edge using an unfinished edge. Cut close to stitching. Use a short stitch on top, as before, running long stitch under between the velvet and the tarlatan. Fit outer facing of taffeta or satin; sew the headsize and finish edge with wired finish as shown on edge used for plain velvet hat.

Where Georgette is Used

This method of interlining and fitting material applies to all thin materials where the frame may show through. The type of hat shown on this page is not suitable for Georgette crepe. On a similar, *but smaller, shape, Georgette* might be used. In that case the frame should be interlined with light-weight cotton crepe. This interlining would be handled just the same as tarlatan. The only difference in making, would be the closing of the seam joinings. *The cotton crepe should not be joined in the back until the Georgette crepe is fitted over it.* The two materials should be turned in together for slip-stitching in the back so as to avoid the margin of seam allowance showing through the thin Georgette.

Instead of pasting the Georgette crepe or the cotton crepe lining, baste a line half way between

the headsize and edge. Leave basting in until the crown is completed and sewed on. This holds the material in place securely.

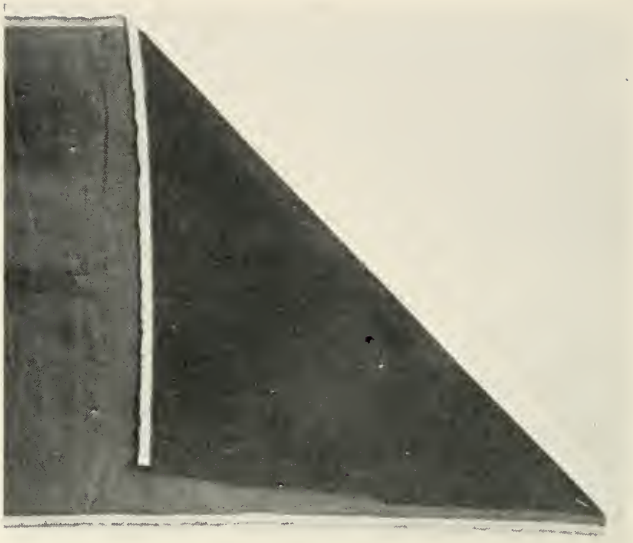
These materials mentioned cover all the different problems one may run across in fitting fabric materials on the straight when a joining is used on the brim. All hats that are fitted from straight material (sailor or slightly drooping shapes such as mushroom) come under one of these heads. All irregular shapes come under the other head where brim joinings must be made. These two groups cover all the problems of fitting plain hats.

Then there comes another group of small and medium sized hats where the material is put on by cutting a bias strip wide enough to cover top brim and facing all in one.

You will note in a former lesson how to calculate for materials for this type of brim covering. After determining width of the strip to be cut by measuring as the diagram in that lesson shows, measure circumference of brim edge. If possible, buy velvet wide enough so one strip will reach around the circumference of the hat. If velvet cannot be secured in the color or quality desired, wide enough so one strip will reach around the circumference, cut two strips; join one strip to the other as shown in the lesson on bias joinings. Cut enough off from one strip so the joinings will come at least eight inches apart, stretch through centre as shown in the illustration, to find where the second joining should be

made. Place a pin where the bias strips meet, remove velvet from frame, join in a ring, slip back on frame, and pin material to top headsize on upper brim. If there is any fullness in headsize pleat in and sew flat, using long-and-short stitch in headsize. Make the crown and sew it on; then pull the bias strip into headsize and finish with long-and-short stitch.

This mode of brim is often used in covering small turned-up shapes where slight drape is desired. The strip is cut extra wide, allowing for fullness in depth on brim for draping. The bias joinings are made the same as for the plain brim just described. The top brim in this case is not sewed into the headsize until after the drape for the outer brim-covering is completed, so it is possible to tack the drape through the frame. Folds are pinned in place and tacked with an invisible stitch into the velvet through the frame. After pleats are tacked, the outer-brim headsize material is left loose until the upper-brim headsize is sewed. The crown is then attached, and, last, the outer-brim headsize is sewed. This reversal of the order of developing the hat is done to make the construction of the hat possible.



Selvage turned at right angles preparatory to cutting true bias

CHAPTER XIV.

THE PRINCIPLE AND APPLICATION OF THE FLANGE

IN the previous lessons we have been learning to cover frames in a simple or plain way, reviewing the principles of placing on frames materials purchased by the yard. This included pinning, stretching, sewing and joining.

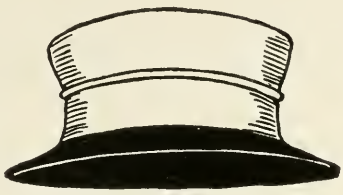
It has been clear throughout these lessons that while we want to know how to do all the details of Millinery Work, *we care for details only as we understand when to use them to make the effect we desire.* In turning our attention to flanges, sectional facings, bindings, folds, and cords, let us think of these as *decoration*, although carried

out in the making or arrangement of the material on the brim or crown.

THE PRINCIPLES OF THE FLANGE

Let us look at a flange first and see how it beautifies a hat, what type of hat it can be used on; how they are cut, made and mounted.

Flanges are used on the crown to promote special crown effects. In the illustration above we see the flange appearing on the side crown, to break the height of crown and make it better looking by emphasizing the general style of the hat.



Flange used on the side-crown to break its height

We learn from these illustrations and from many others that could be presented, that they are really used as decoration in the making of a hat. *The beauty of the hat is no longer left to the trimmer alone, but it is also in the hands of the maker, who has a chance to choose from all the various ways of making or constructing a hat, these fancy or complicated ways of carrying out her design.* She chooses a flange, for instance, if she cares to introduce color into either a pressed or hand-made hat. She looks at the shape she is about to cover and decides whether the use of a flange in emphasizing or repeating the shape of her brim or crown will help in the effect of the finished design. If the material is hard or set-looking she introduces a flange to help redeem her material. *Let us think of all these parts of hats*

coming under the head of flanges, sectional facings, etc., as just one more opportunity to help make the hat more effective.

Now that we have seen pictures of flanges showing their uses on brims and crowns, let us see how they are cut, stretched, joined and placed on the brim or crown.

Making a True Bias

First, the material is cut on the true bias. In the previous lessons we have had very little to do with true bias, as most of our work has either been fitting material by the yard or sewing straw. As all the parts of hats we are now about to study are cut from the true bias, let us first be sure we understand how to make a true bias from a straight piece, and how to test what seems like a true bias, that may in the cutting be off the true bias.

You will notice on looking at the illustration (Fig. 3) that the corner of velvet is turned over until the selvages are at right angles. Cut off the corner along the folded line, and you have a true bias.

After making bias from your straight material, the second point to know about this flange is how wide the finished flange should be. Two things influence your decision as to the width of finished flanges—the size of the hat and the style dictates of the season.

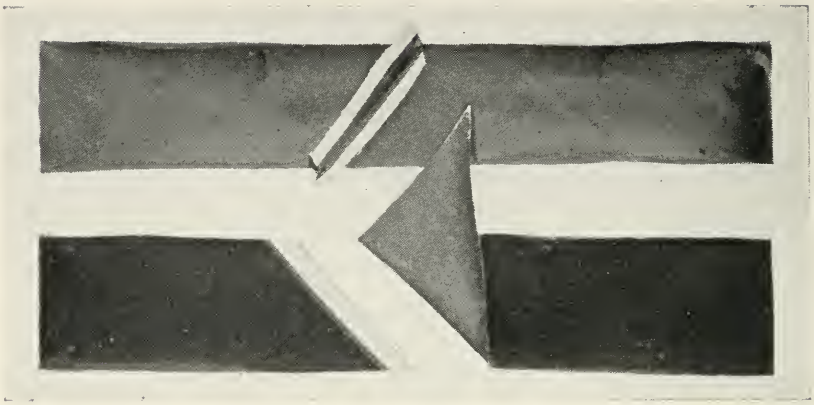
Joining Two Bias Strips

There are few rules in millinery, but this is an

Joining Two Bias Strips

Before cutting the bias strip, pin and stretch the material on the brim where flange is to go. Cut ½ inch below the point marked with pin, to allow for turning in

For a wide flange, as shown, a bias strip cannot be used, and a piece of straight material must be fitted on as shown. Seam allowance must be slashed before being turned in



Upper—The joining of all bias strips must run parallel with the selvage, as shown. Remove selvage after joining

ironclad rule which applies to every kind of material where bias strips are cut—*the joining of all bias strips must run* parallel with the selvage (see Cut.). In cutting bias strips from straight velvet, one end of the strip runs the wrong way. Turn end back until it is at right angles with the edge of strip, and cut, using great care the line of your seam is good. (See Cut.). After cutting the two ends of the bias strips remove the selvage. *The reason it is so important to remove selvage is that the warp and woof threads are all bound together in the selvage, and as the object of cutting bias material is to stretch as much as possible, the removal of the selvage greatly aids in the stretching.* To join two bias strips together so they are the same width at joining as other parts of the flange, slip one strip down on the other the depth of seam as shown in illustration and join by machine.

Measuring the Bias Strip

After deciding a suitable width for the flange in its relation to the hat, *the third point is to know how wide to cut material to allow for stretching and seam allowances, as all materials differ as to how much they stretch out.* The only safe way to find how much to allow for stretching and turning under is to take the true bias of velvet you have made on one end from the straight material and pin and stretch on the outer edge, pinning the upper edge and seam allowance beyond the edge where finished flange is to be mounted. (See Fig. 4.) *Stretch for at least six inches to find how much the velvet is going to stretch.* With outer edge pinned in place, measure through bias strip of velvet, allowing one-half inch for turning lower edge in, beyond given measurement for finished flange. The width is now determined, allowing for stretching and seam allowance. Place pin in velvet to mark the place where it is to be cut. Remove velvet from the hat and by measuring accurately through bias, cut one strip of the desired width. Frequently one strip is not enough to reach around the circumference of the hat. In this case, measure carefully and cut a second strip exactly the same width as the first.

Placing the Bias Strip

The next point is to find where the second joining should go on the circumference of flange. Pin and stretch outer edge of velvet strip a seam allowance beyond finished edge of flange. Stretch even with edge of brim, starting to pin at ex-

treme end of strip, as these strips are to be joined. After stretching securely on outside edge until one end of velvet strip reaches the other, place a pin in the direction the seam should run, and allow twice the amount of seam on one end. Place pin for cutting where velvet is to be cut, as eventually even the seam allowance will be stretched when snapped back on, and the whole success of this flange depends on whether the second joining is right, as a flange too loose or too tight is impossible to mount on the hat. *Therefore, this marking for second joining is most important.* Before removing pinned flange from hat, mark upper edge of flange with pin so that when placing flange back after machine joining is made, the stretched edge goes to the top where it belongs. *Many flanges have been ruined by getting the stretched side in the wrong place.*

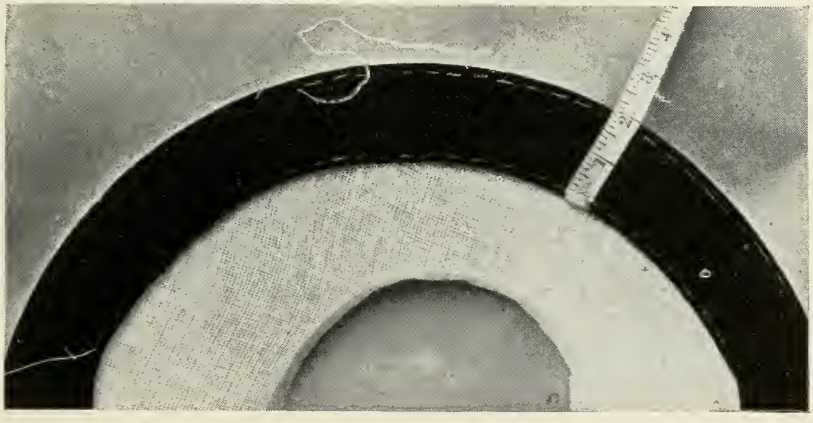
On all brim flanges similar to the one shown in the first illustration, where all parts of the brim show about equal, the joining made by stitching the two strips together should be placed an equal distance from the back. To do this, cross joinings, place a pin in centre of longest strip, pin centre front of flange to front of hat, and centre-back of flange to centre-back of hat, and start to turn outer edge of flange over frame wire, pinning under wire to hold in place. Leave wire open at back until nearly sewed around, with long stitch next to wire. Use slip stitch, rolling wire back as you sew. When within two inches of back, join two ends of wire together with a clamp.

Placing the Bias Strip

Finish flange, sewing across joining to finish thread. Pin wire in lower edge of flange, the same as upper, slip-stitch around, join wire and complete sewing. The flange is now completed.

Treatment for Wide Flanges

For all very wide flanges where a bias strip would not stretch enough on outer edge to remove all fullness on inside edge, a piece of straight material is fitted on surface where flange is desired. (See illustration.) After fitting, the material is cut the desired width of finished flange, plus seam allowance. It is very hard to turn seam allowance in on lower edge of a flange of this character. Slash seam allowance before trying



A two-inch flange made from a bias strip

to turn in over wire. These flanges are turned in on a wire and made the same as the flange just described. This method is sometimes used for flanges made of thin material where the bias joining of two strips would show through. On looking at illustration, you will note such a flange has no joinings.

Georgette and Organdie Flanges

This especially applies to Georgette crepe and organdies. Both of these materials should have an interlining fitted on the frame first and both interlining and outer-material turned in over the wire so that the material in handling the slashed seam allowance for wire on lower edge of flange will not show through.

The choice, then, as to whether a flange be made of bias strips or fitted is determined by the width of flange desired, and also sometimes by the material of which the flange is to be made. *A flange wider than two inches will not stretch out enough to take care of fullness on inside edge;* therefore, such a flange must be fitted from straight material. *For all thin materials, such as Georgette crepe, Canton crepe, organdies, etc., a flange should be fitted from the straight, regardless of the width,* as the seam joinings showing through will spoil the effect of thin flanges which are used for decoration.

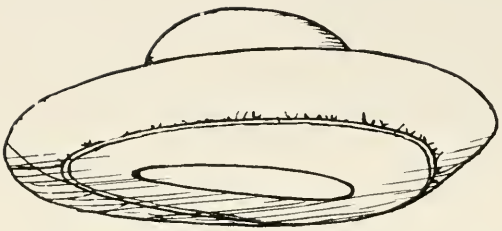
These two ways of placing and cutting and handling will cover the making of flanges for all time.

No. 1—*Sectional facing used to transform black hat into a black-and-white.*

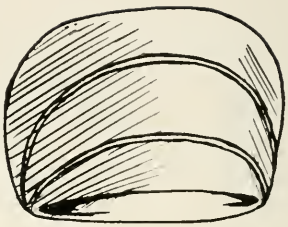
CHAPTER XV.

FLANGES AND SECTIONAL FACINGS

FIRST, what is a sectional facing? A sectional facing is a section of a facing, when straight material is perfectly fitted either on the top brim or underfacing, but does not extend out to the edge of the brim. In the illustration reproduced at the top of this page, you will note the velvet flange on the outer edge of the brim facing. The remaining section of the under-brim is covered with white. This is a sectional facing. Note also that it is of a contrasting color combined with the flange. The object of this sectional facing is two-fold—first, after the flange was planned for the under-brim to introduce the black velvet, it is obvious that a sectional facing would be needed to complete the rest of the under-brim. Added to this, the designer wished to



No. 2—*A flange and a sectional facing used to break the line of the brim and relieve the hardness of satin to the face.*



No. 3—*In a hat of this type the flanges should be either all fitted or all bias strips—never a combination of both.*

make this a black-and-white hat, so she made the sectional facing of white, thus bringing the hat into the latest color scheme of the season.

Here we have the chief object of sectional facings. By their use you can modify the color of a hat to suit the face. In the case of an orange hat, a sectional facing of brown might be used to the face, the unrelieved orange next to the face being too violent.

Two Ways of Combining Flange and Facing

The sectional facing and flange shown in this picture might be made in two ways. The edge of a sectional facing may run up *under* the flange and the inside edge of the flange be finished with a wire, or the inside edge of the *flange* may be run under the sectional facing and the wire be placed in the sectional facing.

Flanges and Sectional Facings

How is one to know which method of construction is best? The rule is this: *Whichever one desires to emphasize should be finished on top of the other*—i. e., in the first method the black is used to introduce into the under-brim the color or material of which the entire crown and top-brim are made. Therefore, in this case it is the flange that adds character to the facing. The flange in this case has more value in the general effect of the hat than the sectional facing, and that is the reason why the wire is placed in the inside edge of the flange.

If this hat were made to order for a customer who was very fond of black-and-white and the use of white to the face was a risk in the point of whether it might be as becoming as an all-black hat, the *whole becomingness of the finished hat would depend upon which material were emphasized!* If the white or sectional facing were finished on top, with the wire thus emphasizing it, the hat would be ruined, while if the black flange were finished on both edges with the wire, it would relieve the white. The eye would rest on the black and thus redeem the finished effect and please the customer by giving her a modish black-and-white hat. On the other hand, if a customer had high color and the white facing would make the hat more interesting for her, the white should be emphasized by a wired edge.

How Fashion Modifies Method

Some seasons sectional facings are in vogue and flanges are not. If compelled to use a combina-

tion of flange and sectional facing in such a season *the sectional facing should be outlined with the wire or emphasized because of its modishness,* thus calling little attention to the flange which had to be used to finish covering the brim and should be subdued as much as possible.

The second illustration shows a white satin hat with flange and sectional facing having two-fold value. It is used first to break the line of the brim; second, to relieve the hardness of satin to the face. By breaking through the line a little of the hardness of satin is relieved. In the construction of this combination where the entire hat is made of the same material and neither the flange or sectional facing have any value as to introducing color, *it is best to place the wire in the sectional facing,* as the facing is fitted from the straight material and is easier to finish with the wire than the bias flange.

In the third illustration a succession of flanges are used, instead of a combination of flange and sectional facing. This illustration is a striking one, showing the use of the flange on taffeta or satin to break the line of the brim and relieve the hardness in texture. In hats where the brim turns off the face as sharply as in this model, it is not only far more economical to use bias strips formed into flanges, but where a combination of so many circular lines are emphasized by wires it is best to use all the material cut the same way. In other words, a combination of flanges and sectional facings in this case would mean,

with the flanges cut on the bias and the sectional facing fitted from the straight, an unsightly combination of straight and bias material on a very conspicuous surface.

If, in making a hat of this character, the bias strips cannot be stretched enough to relieve the flanges of fullness, then the same method should be used as mentioned in reference to flanges where the finished flange was too wide for bias strips to be used successfully and therefore had to be fitted from the straight.

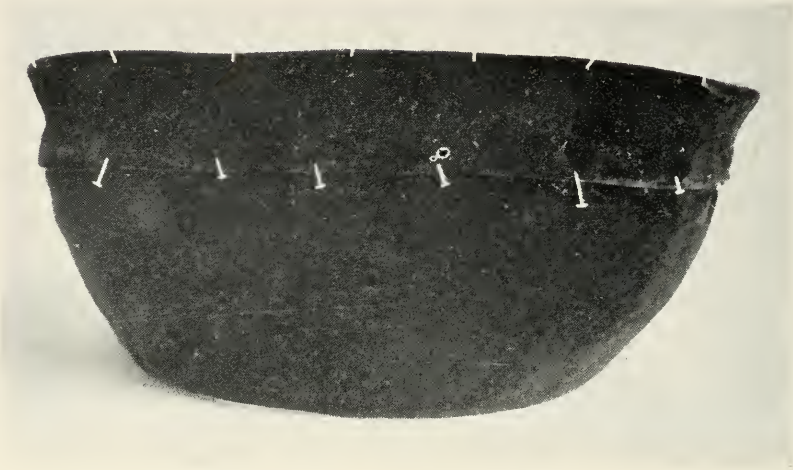
Two things would influence the decision as to whether, in a hat of this type, it would be better to use a succession of fitted flanges from the straight material, or a succession of bias strips. *First,* if the hat were more becoming to the customer with slight fullness in lower edge and the seams in bias joinings were not too conspicuous, then bias flanges should be used. *Second,* if the customer belonged to the type where any slight fullness would be unbecoming, flanges made from fitting on the straight should be used. But in any case, this rule must be observed: *Either all the flanges should be cut on the bias, or all fitted from the straight.*

Illustrations two and three show important points as to the handling of materials as well as the varied uses of combined flanges and sectional facings.

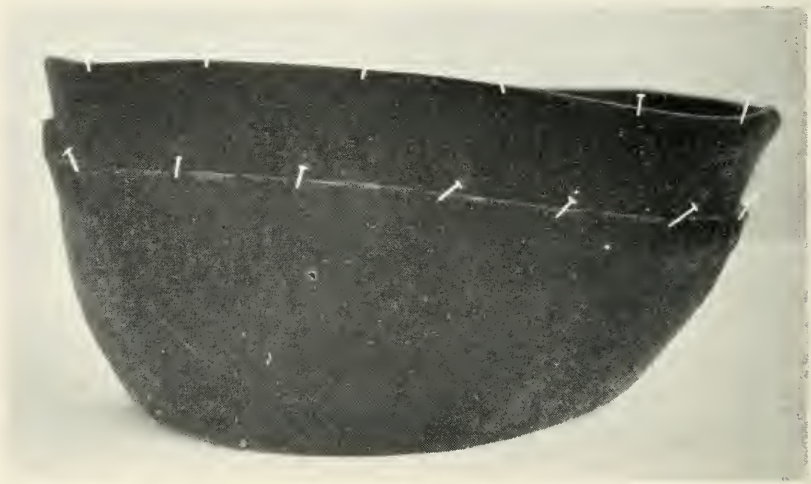
Special Principles for Straw Hats

Flanges and sectional facings are so often used together that one seldom thinks, when making a

SOME TYPICAL COMBINATIONS OF

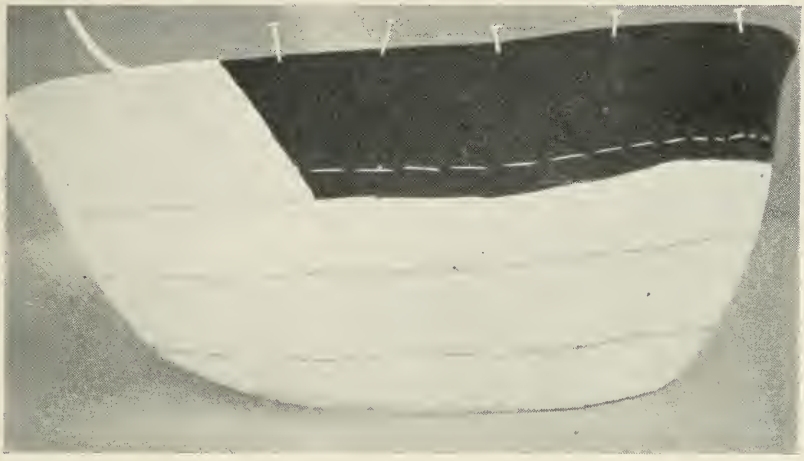


In this hat the edge of the sectional facing runs up under the flange. The lower edge of the flange is finished with a wire, thus completing both flange and sectional facing.

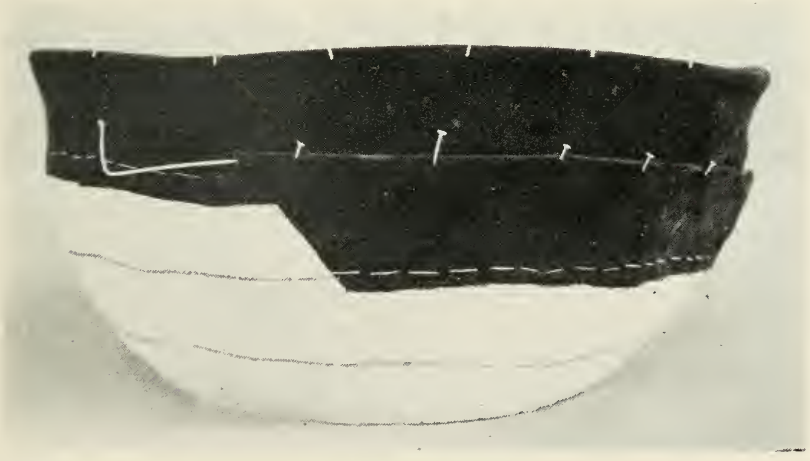


This example shows the lower edge of the flange running under the sectional facing. The wire is placed in the sectional facing (which is the reverse of the first illustration in which the flange is finished with the wire over the facing.)

FLANGES AND SECTIONAL FACINGS



This shows the first process in mounting a flange, where the entire brim is to be covered with a succession of flanges.



This picture shows the proper finish of both upper and lower edges of material where a succession of flanges are used for brim covering, instead of a combination of flanges and sectional facings

hand-make hat, of one without the other. On straw hats, however, they are often separated. A flange may be used to bring the color of the trimming which is used on the top of a straw hat down onto the facing; or a flange on a straw hat may, if made from a darker color than the hat or trimming, tone the hat down or add character to the design.

Let it be clearly understood that flanges are as often used on the top-brim of straw or velvet hats as on the under-brim.

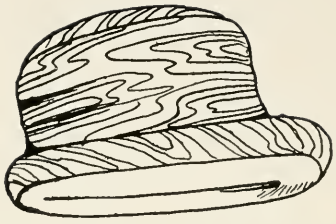
The reason flanges and sectional facings can be used separately on a straw hat and are nearly always used together on a velvet or fabric hat is, that to complete either the top or facing of a hand-made fabric hat it is necessary to combine the two to completely cover the brim, *while a straw hat is all completed insofar as the making of the hat is concerned, and the flange or sectional facing may be used to cover only a small portion of the brim, the hat itself completing the brim.*

When the Straw Color Clashes With the Face

A sectional facing is used on a straw hat, when the color of the straw itself is not becoming to the face, by fitting a sectional facing on the under-brim where it meets the hair. It is possible by using the right color to make almost any straw becoming.

When the Straw Color Clashes With the Face

The choice then between flange and sectional facing (if both are not to be used) in a pressed or hand-made straw hat, is based on whether you want to decorate the hat near the edge or whether, by using a sectional facing next to the face, you wish to change the color scheme next to the face, or protect the hair from rough straw that pulls the hair and is not comfortable. I think I have made it clear that both flanges and sectional facings play a very important part in millinery *effect* —and I emphasize the word "effect" because it is the thing that decides more of millinery methods than anything else.



No. 1—A wide binding is used here instead of a flange, because it is desired to keep the soft effect of the brim, which would be destroyed by wiring.

CHAPTER XVI.

WIDE AND NARROW BINDINGS

WE have seen how useful flanges and sectional facings are on various types of hats, and how they are often grouped together. Let us turn our attention to wide and narrow bindings, and see what permanent part they play in the beautifying of hats, both fabric and straw.

In comparing a flange and wide binding the first point of difference is that the wide binding binds over the edge of the hat; whereas the flange stops at the edge. A binding may be wider on the top brim than on the facing, or vice versa, *but one thing is always true of any binding* — whether wide or narrow, it must bind the edge of the hat.

Use a Binding for a Thin Edge

In the first illustration shown, the use of the moiré binding, which is of the same material as

the top brim and crown, is to bring the material used on the top brim and crown down on the facing. *We also found that was what flanges were often used for—why a binding this time?* When a brim is narrow, as in this illustration, a flange (which never extends over the edge, but rather runs about one-quarter inch from the edge, and is usually finished with a wire) makes a small hat too thick on the edge and cuts the brim up too much. *When a thin edge is desired, a binding is far more effective than a flange.* In this case had a flange been chosen instead of a binding, it would have been necessary to make two flanges —one on top and one on the underfacing. Both separate edges would have required a wire finish, making double wires coming near the edge. The binding, on the other hand, is stretched through the centre instead of on the edge, and when wiring is desired the lower edges are wired, thus keeping the wires away from the edge of the brim. In this case the binding is not even wired, the edges being turned in and slip-stitched. *When one desires to use a strip of the same color or material on the top and bottom of a brim, a binding should be used.*

How It Is Made

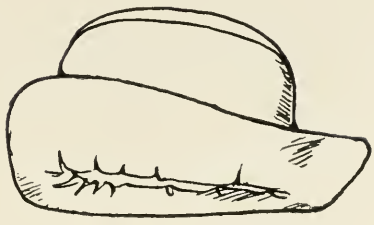
It is clear on looking at this binding that it is first cut on the bias the same as the flange. The width to cut the material is ascertained as in the case of the flange—by stretching a true bias over

the part where the binding is to be mounted. Stretch through centre, this time, for a space of about six inches, determine the width that looks best, measure this width, plus seam allowances; mark with pin the place of cutting, and remove from the hat. Cut two strips of equal width (see illustration in previous chapter for preparing and joining two bias strips together). Join with machine. Start at one end of the strip to pin the binding on the edge of the hat, allowing equal amount of binding top and bottom. Stretch hard through centre so the edges will cling. Stretch until the two strips meet, put pin in to mark place for cutting, remove from the hat, cut and join in a ring by machine, restretch on the hat and finish edge by slip-stitching or by wiring.

Slip-Stitched or Wired Edge

If the edge is soft and needs supporting as well as binding, the wire finish serves two purposes—that of decorating the edge as well as supporting the shape by the concealed wires. If soft effect is desired, use the slip-stitch. A wide binding may be slip-stitched quickly by sticking the needle right through the hat, doing both edges as one goes. For the wired finish, do each edge separately. Pin and sew, as when wiring sectional facings. Do the most inconspicuous edge of binding first, leaving the best work to be done after practicing on the least important. As on sec-

tional facings, leave the wires open until sewing is nearly completed, then join with clamps. The joining should be arranged to come at a point where it can be concealed by trimming.



No. 2—A binding which covers entire brim and facing. Useful where fullness from the inside edge is becoming.

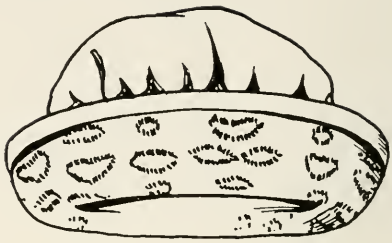
SOME ILLUSTRATIONS

The second illustration shows binding cut wide enough to cover both top brim and brim facing. This is one of the most useful ways of using wide bindings and may be applied to all kinds of shapes where fullness from inside edge of binding is becoming; the binding in this case is sewed with long-and-short stitch in the head-size, just as fitted material is sewed.

No. 3—This wide black satin binding emphasizes the beautiful curve of the brim and it also reduces its apparent size.

In the third illustration the wide black

satin binding makes an elegant slick finish to the large black satin or velvet hat. It also diminishes the apparent size of the brim and outlines the beautiful line of the brim.



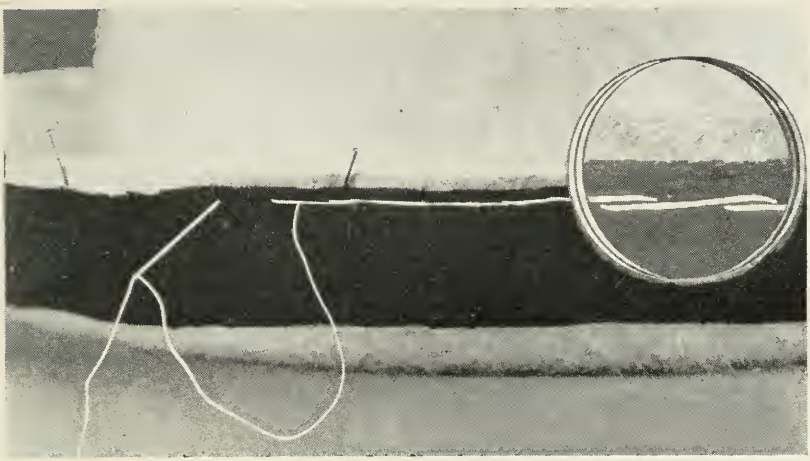
No. 4—A narrow binding, which serves chiefly as a background for the embroidery on the facing.

Narrow Bindings

In the fourth illustration the narrow binding on the edge of the hat is used as a finish to make a background for the embroidery on the brim. It is clear that this narrow binding makes a prettier finish on the edge of brim, than letting the facing run up and finish with a wire. A wide binding would be out of place, as it would conflict with the embroidery below. Narrow bindings are frequently better suited in width for small hats.

Other Uses for Bindings

Narrow and wide bindings are sometimes used to finish the edge of straw or velvet hats that have been cut down to make the brim smaller. Again, narrow or wide bindings are used to introduce a striking color on the edge of the brim where the same color is desired on both top and facing of the brim. Sometimes a binding is used



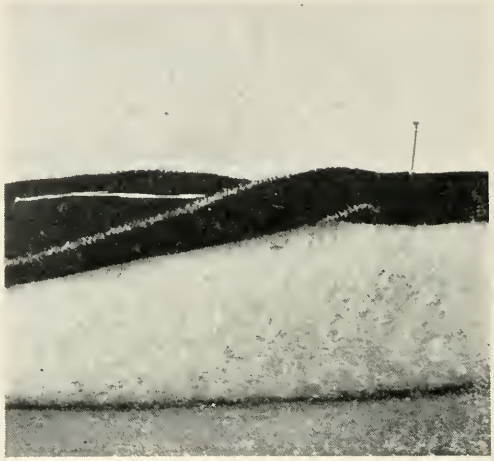
The velvet for the narrow binding after being joined in a ring is pinned in place as shown and back-stitched preparatory to binding over the edge of the brim. It should be kept in mind that the distance of the back-stitching from the brim edge regulates the width of the finished binding.

the same color as the straw hat to keep the hat in self coloring and still soften the edge.

How Narrow Binding Is Attached

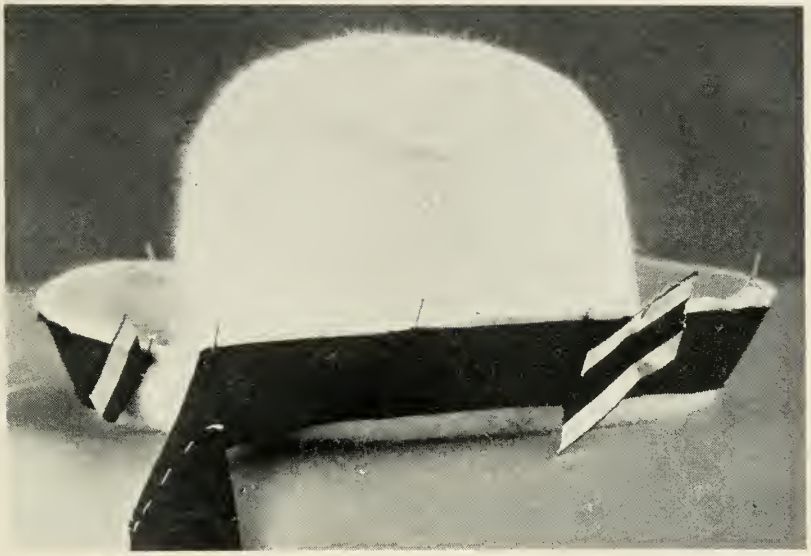
A narrow binding is cut and joined the same as wide binding. *The point of difference is in the stretching and sewing.* Narrow bindings are stretched on the edge instead of through the centre, they are back-stitched on the most conspicuous side of the binding, turned over and slip-stitched on the other side to finish the edge.

The choice between wide and narrow bindings is often decided by which is most in vogue. Some seasons wide bindings are in favor and narrow ones not used; again for no seeming reason narrow ones are chiefly used. The choice again be-



The narrow binding partly turned over the edge of the brim. After the entire binding has been thus folded over it is slip-stitched in place. When the brim is to turn down making the upper side the most conspicuous on the hat the back-stitch should be on that side and the final stitching on the concealed side.

tween flanges, sectional facings, wide and narrow bindings, is all a matter of *which will make a hat most effective and becoming, together with what Dame Fashion decrees.*



Material for plain fold stretched on the outer edge of the hat to determine the place for the second joining. The thread on the velvet in the foreground marks the place where the material will be cut.

CHAPTER XVII.

PLAIN FOLDS

IN previous lessons we have learned the difference between flanges and bindings and the important use they play in decorating modern hats.

Milliners' folds are often confused with bindings. Let us make a clear distinction between folds and bindings before we see how they are made.

The plain fold after joining. After removing from the hat, it is ball-stitched as shown on the far-side of the fold illustrated. The points where the joinings occur are then placed opposite each other and the end where the longest strip is folded in half is marked with a piece of thread to indicate the front.

Why the Fold is Chosen

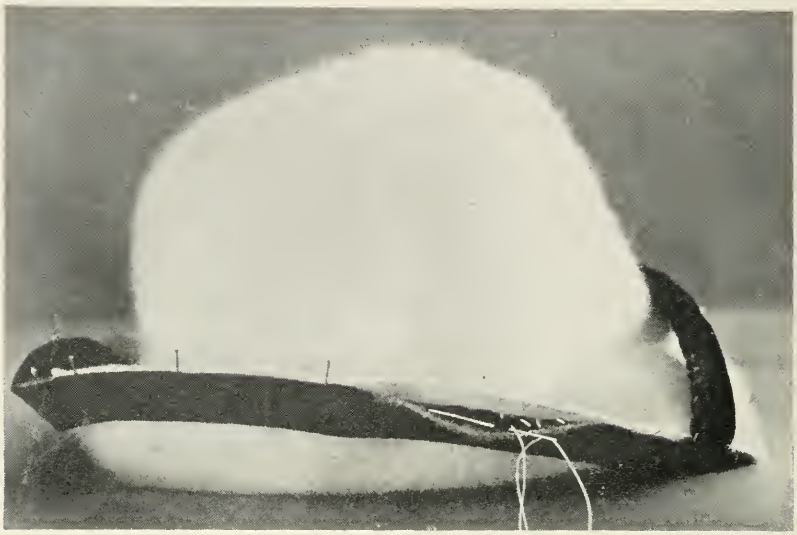
In the first illustration you will observe a narrow piece of velvet extending around on the underbrim of a felt hat. At first glance one might call this a narrow binding. But the velvet reaches only to the edge and does not extend over it, so it is not a narrow binding. Could we call it a Flange? No; flanges are never as narrow as the brim-edging shown in this picture. This is what is known by milliners as a plain fold. Its purpose here would be to repeat the color scheme of the trimming on the facing of this plain hat. A flange would have ruined this lovely felt shape by covering too much of the under-

brim and also in mounting and wiring the flange the effect of the otherwise soft hat would be ruined. Certainly a sectional facing would not be in keeping on a soft felt; first, because it would cover up too much of the beautiful ground-color of the hat; second, because in mounting the sectional facing on, the soft effect of the felt would be sacrificed and the hat would be thick and cumbersome. Then, you may say, how about a narrow binding? A narrow binding might be used on a soft felt to advantage, but in many cases a narrow binding would detract from the beauty of the color scheme.

Brim and Crown Must Never Compete

This involves one of the aesthetic principles of millinery. If a hat is to be artistic either the crown is the interesting part or the brim. *If both are of equal interest the design is never a success.* I love to think of a hat as a brim with a crown lost sight of, made only to finish the hat the same as the lining; or, on the other hand, a hat where all the interesting line and color are made on the crown, the brim sinking into obscurity, just finishing the crown. Sometimes neither crown nor brim are of interest, a stunning bow making the effect of the hat. As one looks at a design of this kind the impulse is to exclaim, "What a stunning bow!"

For illustration, the intention might be to make the crown of interest by means of embroidery. If even a narrow strip of the color used on the



When the fold is ready to be attached it is stretched on the outer edge of the brim taking care that the point marked with the thread comes at the front of the hat. It is then attached to the hat by slip-stitching.

facing were extended up on the top as a narrow binding would do, it certainly would detract from the crown, by emphasizing the top brim.

Let us learn to feel these fine points when deciding between folds, bindings, flanges and sectional facings which are to be used in the highest sense to beautify a design, not to over-do it.

The second illustration shows a black velvet fold. This is used on a white facing to emphasize the black velvet which is used on the top brim and crown, and to connect the underbrim with the crown and top brim. Reversing the process, a fold may be used on the top brim of a hat when desiring to bring the color of a facing up on the top. *Folds are distinctly decorative and, unlike*

flanges, sectional facings and bindings, do not aid in the covering of any part of the brim of a hat. As they cover a very small surface the hat must be entirely finished before the fold is mounted on.

Making and Mounting the Fold

Folds are cut on the true bias the same as flanges and bindings, but unlike these the fold is made in the hand after being stretched and at last is slip-stitched on the hat. The illustration on this page shows the fold stretched on the outer edge, on the surface where finished fold will be mounted. After stretching for a space of about six inches to see how much the velvet is going to stretch out, allow twice the width of finished fold. For example, three-quarters of an inch is a good width for a plain fold. After stretching velvet (assuming that we have selected the width mentioned), measure through the stretched piece, before removing from the hat, 1½ inches (which is twice the width of finished fold). Mark width with pin, and carefully mark with pin or thread the *stretched* side of the fold (as later it is impossible to tell which side was stretched, and if when the fold is finished the stretched side should be on the lower instead of the upper edge of the fold it would have fullness on the inside edge and thus be ruined). After marking for cutting and also marking the stretched side, remove from the hat and cut most accurately two strips, the width desired. Join strips together the same as bias strips

are joined for flanges and bindings and restretch on hat the same as first strip was stretched, with nap side of velvet out, stretching outer edge. Stretch until velvet meets, place pin for place of cutting, remove from hat, cut for joining as described for flanges and sectional facings and join in a ring by machine.

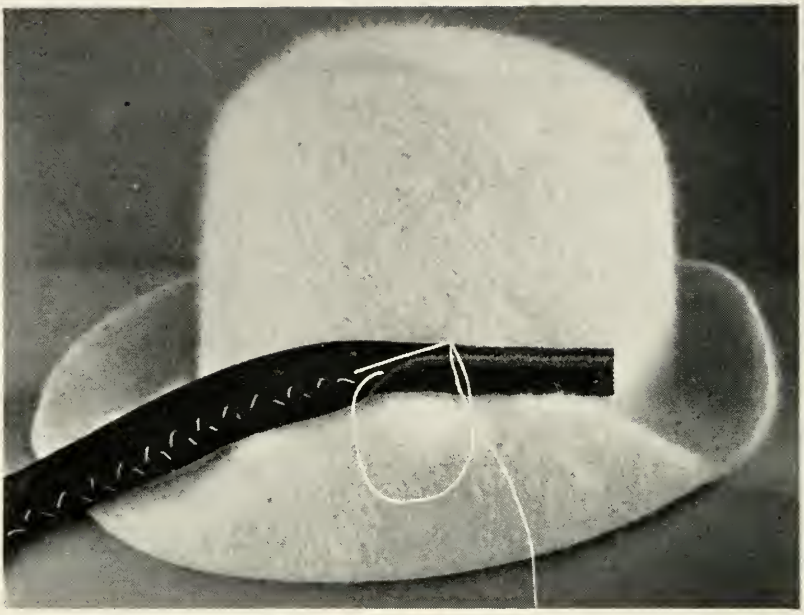
Introducing the Ball Stitch

A new stitch is now used to finish these unfinished edges, known as the ball-stitch. Ball-stitching is to millinery what basting and overcasting are to dressmaking, the difference being that ball-stitching is not removed as bastings are in dressmaking, but is left as preparatory stitch to hold unfinished edges together, which are eventually slip-stitched to hat. Unfinished edges of the fold are ball-stitched together as shown in illustration. After ball-stitching, cross joinings, as shown in working drawing; take half of longest strip, place to front bringing joinings equal distance from back. (Note.—The joinings of folds the same as flanges and bindings on hats where trimmings are used on the edge of brim or falling from the crown so one, if not both, joinings are covered with the trimming, on irregular shapes the joinings are placed where they show the least.) *This rule of crossing joinings and placing half of longest strip to front applies to shapes where flanges, bindings and fold joining show equally at all points on the brim.* (See page 118.)

Restretch the double ball-stitched fold on hat,

with ball-stitching near the outer edge of the hat. Slip-stitch finished fold to the hat, slip-stitching back from the outer edge of the fold about an eighth of an inch. Do not slip-stitch inner edge of fold as the fold is double and by placing ball-stitching near the outer edge it cannot show from underside of fold.

Folds are used on straw hats for the same purpose as on felt and velvet hats.



Milliners fold partly attached. The needle is in place to continue the long-and-short stitch which secures it to the hat. This stitching is done well inside the fold so as to be invisible.

CHAPTER XVIII.

MILLINER'S FOLDS

JUST as we speak of flanges, sectional facings and wide and narrow bindings as one classification, so we must think of folds as coming under the head of *plain* and *milliner's* folds. The milliner's fold is sometimes called a French fold.

Let us see how a milliner's fold is used and in what respect it differs from a plain fold. If you will look at the illustration shown you will see the milliner's fold mounted around the base of

crown. On observing the working illustration closely it is seen that a milliner's fold is a double fold looking like a plain fold with piping introduced in the edge.

Purpose of Milliner's Fold

The main use of a milliner's fold is to finish the base of the crown. This seems like a very insignificant use in comparison with the plain fold, bindings and flanges, but the milliner's fold plays a great part in millinery construction, aside from its use as decoration. In the lesson on the order in which a hat is constructed or built, the point was made that the crown should slip well down over the brim headsize and that the crown should be tacked on the hat before the under-brim was covered with outer material, thus making the crown and brim blend together. Everyone who is experienced in making hats knows that it is always difficult to sew a crown on a white satin hat, for example, so that the imprint of the slip-stitching does not show. When one considers that it is on this line of sewing that the entire weight of the hat comes when adjusting it, it is not to be wondered at that in sewing strong enough to hold the crown firm, the hat at this particular spot looks "handled." It is at this point that the milliner's fold comes to our rescue.

"Why not use a narrow ribbon around the crown and avoid the extra work of making this double fold?" may be asked. The answer is that the rib-

Above, sample of milliner's fold. Below, sample of plain fold.

bon would *divide* the hat instead of uniting it. Many hats fail in just this place: a contrasting material such as ribbon combined with satin is used around the base of crown, making a conspicuous line between crown and brim, instead of uniting the crown and brim in a harmonious manner as a fold of the same material would do.

How It Differs From the Plain Fold

The milliner's fold is the only one of the bias finishes mentioned that is not joined in a ring before mounting on the hat. It must be clear it would be impossible to mount a milliner's fold on a hat where the top of the crown happens to be larger in circumference than the base of the crown, if the milliner's fold were joined in a ring. The milliner's fold is never mounted on until after the crown is securely sewed to the brim, so the first point of difference between a plain fold and a milliner's fold is that the plain fold is joined in a

ring and stitched back in place, while the milliner's fold is left open.

How It Is Made

Like other folds, bindings and flanges, the milliner's fold is cut on the bias. The velvet is also stretched on the surface where the milliner's fold is to be mounted. A short strip of velvet is stretched to find how much the material will stretch out. On looking carefully at the picture of the milliner's fold one will see that while it is doubled over to look like a double fold, the part that is doubled over comes about three-quarters of the width of the finished fold.

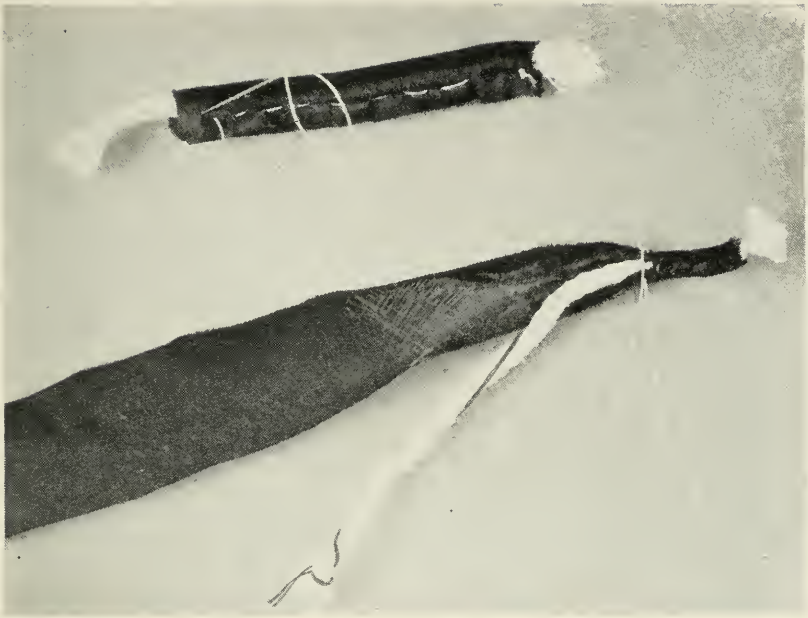
We found that a plain fold should be cut twice the desired width and the milliner's fold is to be doubled over again to cover three-quarters of the width of the finished fold. Therefore, measure twice the desired width of the finished fold *and to this add three-quarters the width of finished fold,* which gives you the proper width to cut the milliner's fold.

After cutting bias strip the width desired, ball-stitch the unfinished edges of the fold together as in the illustration on plain folds. After ball-stitching is completed, decide which side the trimming is going on the hat. Start to attach the milliner's fold at this point. Place fold with ball-stitching toward you, fold back lower edge of double fold, making the spacing as shown by illustration. Sew through the unfinished end of

the fold after it has been doubled over so the fold is tacked securely to the crown as shown in illustration. Stretch double fold, holding fold in the hand and mount by taking long and short stitch through the hat between the space where fold is doubled together. (See illustration.)

In the past it has been the practice to make the milliner's fold in the hand by slip-stitching the double fold together and then mounting it on the hat. When this method is used, the stitches made by slip-stitching the fold together will not stretch, thus the milliner's fold is apt to draw. Again, after all this slip-stitching is completed the milliner's fold is still to be mounted on the hat. By the time the second line of slip-stitching is made to attach the fold to the hat it is almost certain to be set-looking. As the object of this and all other folds is for decoration, the simpler method of handling is not only much quicker, but more effective.

If trimming does not cover the unfinished joining made on the outside where unfinished ends of fold meet, take a small piece of fold and use it as a cross-knot to finish the end.



Above, sample of unfinished cord. Below, sample of finished cord. Note the tie wire wound around the cable cord in the lower example. This gives the finished cord the required stiffness for ornamental purposes.

CHAPTER XIX.

FINISHED AND UNFINISHED CORDS

ANOTHER group of interesting finishes on hats are finished and unfinished cords. An example of their use is found in the cord effect frequently set in between the sections of the crown. These are called "unfinished" cords because the edges of the cord covering are left unfinished. These unfinished cords are used in

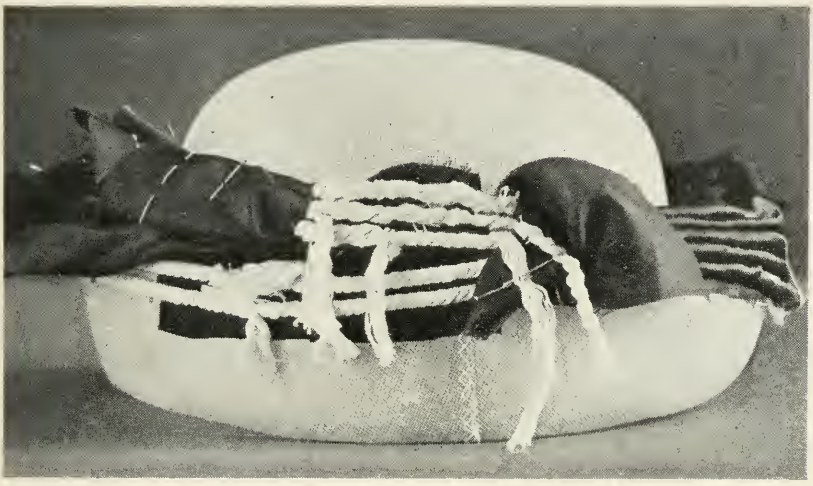
all kinds of ways as insets. For example, in a recent French model made of flat blue straw, each row of straw was piped with an unfinished cord. This softened up the otherwise harsh braid and made the hat becoming. Unfinished cords are often set in between the tip and side crown, making an interesting finish outlining the crown tip. All kinds of shirrings are done on unfinished cords.

Making Unfinished Cords

First, cable cord is chosen the size desired. Cords are used in all sizes from very fine to coarse cord.

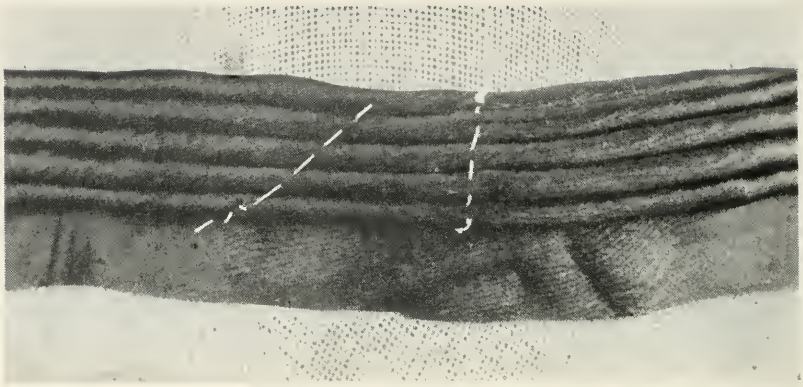
For the unfinished cords, where one cord is to be used as an inset, bias strips are cut wide enough to enclose the cord and to leave a quarter-inch margin on both sides of the bias strip. This strip is placed over the cord, and with a long-and-short stitch the bias strip is sewed close to cord, leaving edges unfinished. (See working illustration.) This covered cord with the edges unfinished is frequently sewed on one section of a crown, and another section is sewed to the other side, thus producing a very smart finish, easy to make.

On page 132, where a group of unfinished cords is inserted, a bias strip is cut wide enough *so that all the cords can be put in the same strip.* A quarter of an inch is allowed for the seam on each edge, exactly as when a single cord was cov-



The method of joining cords when a group is encased in one piece of covering material. The lower cord indicates the first process of splicing, which consists of removing the extra strands. In the second cord from the bottom, the unfinished ends have been spliced together. The top cord shows the finished splice tightly wound with thread to reduce the size of the joining. Note that the joinings are made diagonally, so that all do not appear in the one spot as this might cause disfigurement.

ered. The first cord is laid in and the material sewed with a running stitch very close to cord. In the illustration shown, there is no space between cords, therefore the second cord is laid just a running thread from the first and the same method followed in sewing close to the cord. The third cord is placed without spacing between. In mounting this cluster of cords, the bias strip containing the cords is stretched on a brim, to get cords in position for sewing. The unfinished edge of the strip containing the cords should be cross-stitched over the edge of the brim and the top facing brought up on a wire to finish. The lower



The finished group of cords. The white threads are merely inserted for the purpose of demonstration. The diagonal thread indicates where the cords are joined inside the casing, while the vertical thread marks the place where the outside material is joined.

edge might be slip-stitched on to the facing or the unfinished lower edge of cord be basted to frame and the facing turned in on a wire to finish.

Making the Joining

The matter of mounting bias corded strips on brims or crowns is very simple until the joining is reached, which, unless properly handled, is very difficult. Start by drawing up upper cord of the one nearest the outer edge. Unravel the ends and cut enough of the strands out to make cords when joined together the same size at joining as the original cord. Before starting to join cords cut off the pointed end of casing material so the cord covering will make a straight joining. (See illustration.) After joining first cord, turn one end of material back to make a finished end and lap it over the other unfinished end of material; do not try to slip-stitch cord covering together at

joining, sew close to cord across place where joining has been made exactly the same way you have sewed through the entire process of covering cord. Try to join your cords in different places, as shown in working illustrations, so that no attention is called to the joining. The cord *covering* can all be joined at one place if cord is joined at different places near the side back. These unfinished cords may be used at any place on either a straw or fabric hat.

Making Finished Cords

In finished cords the edges are turned in instead of being left unfinished. The material is cut on the bias the same as for unfinished cords. The material may be stitched on the machine as a casing, and cord run through. By attaching cord to wrong side of material the casing can be pulled over the same as an umbrella case is slipped over the umbrella. Finished cords are used to make fancy corded ornaments.

FINISHED CORDS

In *finished cords* the edges of cord casing or covering are turned in, instead of being left with raw edges, as the sample of the unfinished cord shows.

Before starting to cover the cord, fasten a piece of tie wire to the end of a length of cable cord and twist the tie wire around the cord as shown in

illustration. This fine wire gives the cord just enough body so that it is not only easier to handle while making, but, after completion, the cord may be shaped in any desired effect for ornamental purposes without sewing too securely. An ornamental finished cord made without this wire is bound to be set-looking, because it must be fairly nailed to a surface to be held in place. For covering the cord a true bias of material is cut wide enough to double together in the centre and overhand onto the cord as the illustration shows.

A *finished cord* is sometimes used to brace a hat on the brim edge as well as to give the cord effect. In this case the *cable wire* is used instead of the cable cord, thus bracing and cording the hat at the same time. The best example of this use of a finished cord may be seen on a floppy horse-hair hat where the beauty of the hat is its transparency.

The material for covering cable-wire is cut on the true bias, the same as for cable cord covering, the only point of difference being the joining of cords. When cable cord is used the cord is spliced, as shown in the illustration on cord joinings for unfinished cords. When cable wire is used the covering is removed from both ends of the cable wire and a clamp is slipped on to the end of each wire. The covering is then overhanded over the joining.

Procedure for Fancy Finishes

In showing how to cut, stretch, pin, prepare and mount flanges, sectional facings, bindings, folds

and cords, plain ones have intentionally been selected as simple examples. All kinds of shirred, pleated, tucked, smocked and fancy ideas may be introduced in any of these. Whenever a fancy effect is desired, make *one-fourth* of the flange, binding, or mould, in the effect desired, and pin on the hat to develop effect as to fullness of shirring or pleating. Then divide the hat into four equal parts, plan one section with just the right amount of fullness, to achieve the special effect desired. Remove from the hat, allow three times as much more, join in a ring the same as plain binding, flange or fold, quarter the strip and quarter the surface it is to be mounted on. Keep fullness in the section where it belongs. Choose between the wire or slip-stitched finishes the one best adapted to finish your fancy fold or flange.

The principles back of the cutting, stretching, joining and finishing of plain bindings, flanges, folds, etc., will cover the needs of making any kind of these fancy folds, bindings or flanges as long as hats are made of fabrics.

CHAPTER XX.

STRAW SEWING

PART I—HAND SEWED STRAW HATS

SO often one hears the remark made by smartly gowned women, "I have almost decided never to order a hand-sewed straw hat again, they are often so heavy and thick-looking."

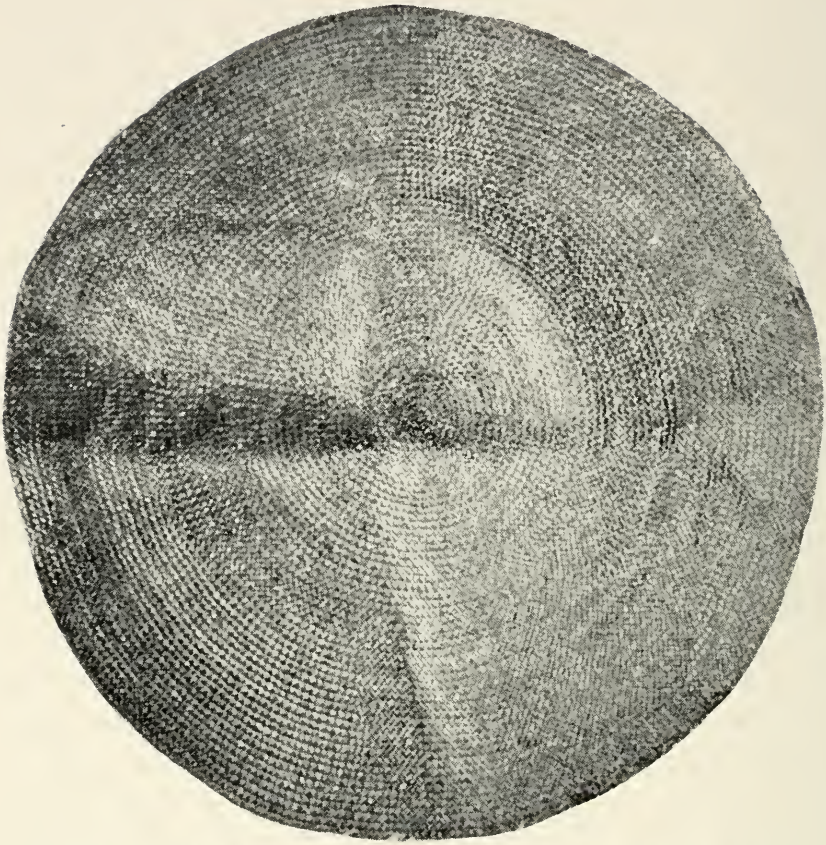
Perhaps a story will be excused in a book on workroom millinery, as it expresses so well the point I want to make: A smartly gowned woman walked into a millinery shop on the Avenue, asked a salesperson to show her some hats, and, after a short time, found just what she wanted. On being told the price, however, she was horrified and called for the proprietor. The proprietor came and recognized the woman as being the wife of a New York surgeon. She began at once to ask how he could charge such prices. "There isn't more than two yards of velvet on this hat," she said, "and practically no trimming! What can make it so expensive?" The proprietor turned to her and said: "Mrs. W——, do people pay your husband for the knife and catgut he uses when he operates, or do they pay him for the way he fixes them up?"

Is the Hand-Made Hat Worth While?

The hand-sewing of straw *in the hands of unskilled workers* does make thick, unbecoming hats, but that is no argument against hand-sewed straw hats. Let us look at the value of making a hat, inch by inch, as compared with the practice of ordering from manufacturers' shapes. First, a pressed shape or blocked hat isn't made for anyone in particular. The headsize may not be right for Mrs. W——, or the facing line may be too deep, or the crown slightly too high. If altered, the whole design of the hat is ruined. Then, it may not blend in coloring with her gown.

On the other hand, suppose the designer from the house where Mrs. W—— buys her hats, season after season, has been planning a smart hand-sewed straw hat for her. After attending all the Spring openings where French hats have been exhibited, she takes the sketches made from these hats, together with her notebook, and she first makes Mrs. W—— *a headsize that will fit her* (see chapter on "Wire Frames for copying French Hats"). Then she starts to make a shape for her in wire, taking the back, perhaps, from an Evelyn Varon model, the side from a design made by the Modistes Mary & Annie, a crown perhaps from a Leontine model and last of all she gives that touch in line, dear to every real designer, which is called individuality, in an exclusive design.

You might search day after day among the



Plateau of Yedda straw. It is soft and flexible and is draped over a crown or fitted to a facing, just as you do with ordinary fabrics. The plateau is particularly useful for combining with satin, taffeta, etc. Plateaux are also made in Tagal, horsehair, Leghorn and peanit.

pressed shapes but you could not find such a shape because there isn't another like it and an exclusive shop would not make a reproduction because no two people look just alike. Therefore something else would be better for Mrs. B. After this frame is completed is it likely that a designer of this calibre is going to risk its effectiveness by

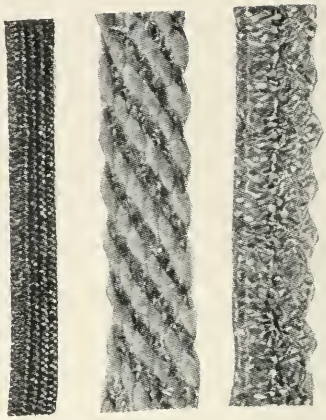
failing to carry out the technique of the hat successfully? Let us consider the sewing of straw from this high standpoint, and keep away from the thick heavy hand-sewed straw hats that our smartly gowned women rightfully condemn.

The French Method

The French way of sewing straw, *using frames only as patterns,* is what rightfully claims our attention at this time. In the previous lessons we have seen how to make all kinds of wire frames, *either to be used as skeleton frames* to make tulle, lace or organdie hats on, *or as blocks* to stretch willow or cape-net, on which velvet, duvetyn, satin, taffeta or any other fabric material may be constructed. The chapter on wire frame-making in copying French hats brought all the previous lessons on frames to a climax, showing the commercial value of hand-made frames in copying French hats. At that time these frames were adapted to Fall hats, a different proposition from making hats of straw. How are we to choose from these frames the right ones to use for straw sewing?

The tendency in straw, as in fabric hats, seems to be progressing toward softer lines, so the aim, insofar as possible, is not to use frames of any description. *What use, then, has the wire frame in the field of hand-sewed straw hats?* It is used, on the one hand, as a pattern on which to shape straws that have sizing or stiffness enough to

Here are types of the two classes of braid with which the milliner works. No. 1, at the right, is a sample of liséré braid. This, with Milan, hemp, Belgian split, etc., is really a combination of four braids sewn together for convenience in handling. Nos. 2 and 3 are two examples of the innumerable fancy straws, which constitute the other class used in millinery.



1 2 3

hold their line after being removed from the frame. On the other hand, the frame can be used as a block, as for fabric hats, for straws that need the support of a cape-net frame.

Three Classes of Straw Braids

Straws from the manufacturers' standpoint come under three groups.

First, the Milan, hemp, liséré, Belgian split, etc., which are made up of narrow strands of straw. These braids, in their original narrow form, are impractical for hand-made hats, although the "machine" shops use them for blocked hats. So the manufacturers of straw braids stitch four or five of these narrow strips together by machinery, making a strip of straw between three-quarters of an inch and one inch in width.

The straws I have mentioned above are again

divided into two kinds—those which are lacquered or stiffened, and those which are not. The sizing or lacquer gives the braid a glossy finish and makes the straw more adaptable, in making hand-made hats where extreme line is desired. Under this group comes liséré, Belgian split, etc., while Milan and hemp represent the unstiffened braids.

Second, come all the straws that are not made up of strands, as I have just described, but are woven the widths desired. These straws are made various widths, the average width being one inch. The manufacturer uses all kinds of original ideas in making these straws, by using combinations of wool, chenille, straw, wood pulp, cork, etc. Every known fabric material may be interwoven with straw to make this great variety of what is known as "fancy" straw braids. Under this head come horse-hair braid by the yard, caterpillar, Angora, cellophane, Tagal, etc. This group of straws, like the other group, may be divided into two classes—those where dressing is used by the manufacturer and those prepared without dressing.

Third come the straws prepared by the manufacturer as plaques, or woven strips. Different sizes of Tagal, Leghorn, peanit straws, stitched plaques of hemp, horse-hair, Yedda, etc., or woven strips of straw wide enough for draping, made of Tagal, hemp, peanit, or stitched strips of hemp, horsehair or any fancy braids stitched or woven together, all come under this third group.

So long as millinery is in existence, straws will

come under one of these three heads, i. e., *strands* stitched together wide enough for practical use, *woven straws* made of all kinds of fancy materials, and *plaques* or wide strips made of straws, plain or fancy, by the manufacturer, where sewing row on row of straw would spoil the effect of a hat.

CHAPTER XXI.

STRAW SEWING

PART II—SEWING THE STRAND STRAWS

I USE for the first illustration the lisere straw, showing the handling and sewing of this straw and the choice of a frame to construct it on.

In the illustration shown the original hat was made of Milan straw. It could be copied in any straw made up of strands stitched together, such as hemp or Belgian split. For the illustration shown we would first make a strong wire frame, studying every line of the frame from the picture (see lesson of wire frames made from pictures). *This frame is to be used only as a pattern to shape the straw over.*

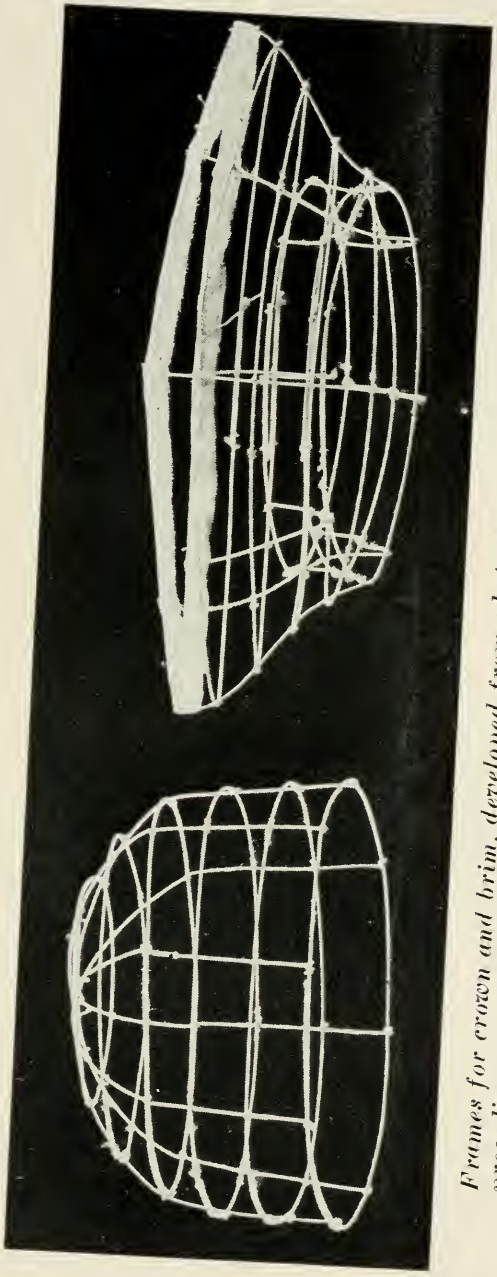
Handling Lisere and Similar Straws

In preparing a frame for straw sewing, first sew a binding of crinoline to the edge-wire, making a base to which the first few strands can be sewn. The frame is now ready for use.

For a hat of the size shown, three pieces (of ten yards each) of lisere straw would be needed. Open one piece of straw. First find right end of straw to start sewing (see page 146). Lisere is made up of four or five strands stitched together. Start with the finished edge of the strands

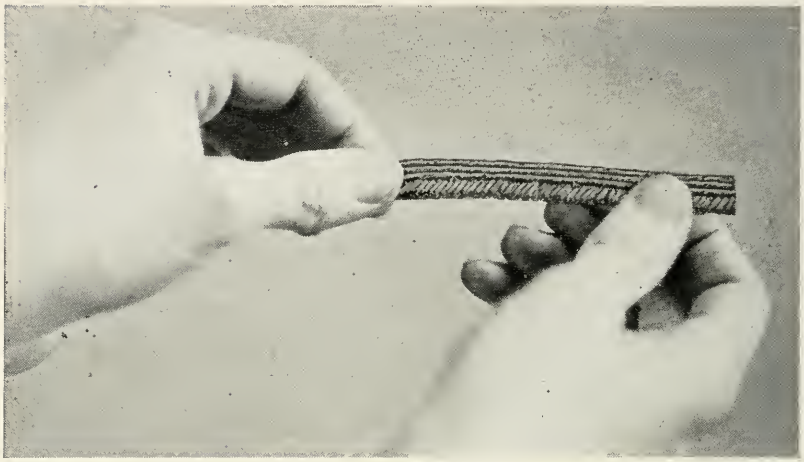
Front and rear view of the hat which is described in this chapter.

up toward the edge wire, which will bring unfinished edge of straw at lower edge, to be covered up in lapping the next row. After determining the end of straw to start sewing from, *put about three yards of your straw in a basin of warm water to soften the straw so it will shape to your frame as you sew.* Start to sew straw to



Frames for crown and brim, developed from photograph of French hat shown on the preceding page. These are not to remain permanently in the hat, but are merely to be used as blocks on which to shape the straw while sewing. Note the crinoline edging sewed on the brim frame, to which first row of straw is stitched.

Frames for straw sewing described in these chapters.

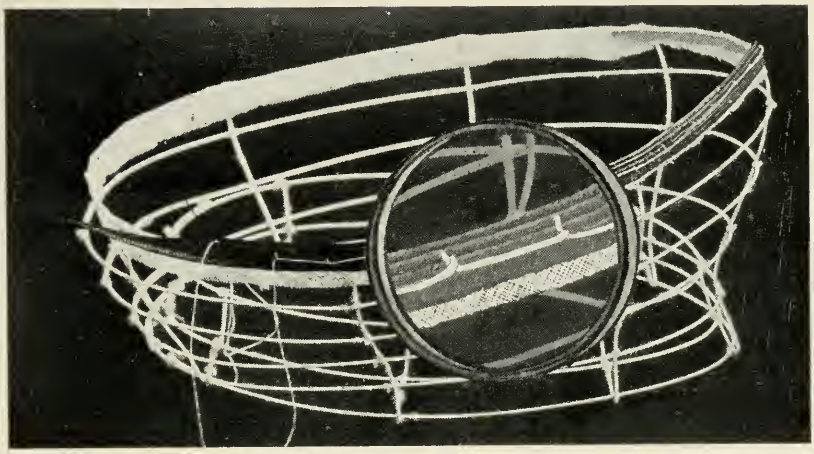


If you start with the wrong end of the braid, it will mean sewing in an awkward and left-handed fashion all the way through. Unless left-handed, it is better to sew toward you in all cases. The picture shows the end with which you should start sewing, held with the finished edge uppermost, just as it will go on the hat.

edge wire at the point, if possible, where the trimming will cover it when finished.

When starting, it is well to see that one strand of straw projects above the edge-wire, as the tendency is for the straw to slip down as succeeding rows are sewed to the first row, making the finished hat too small.

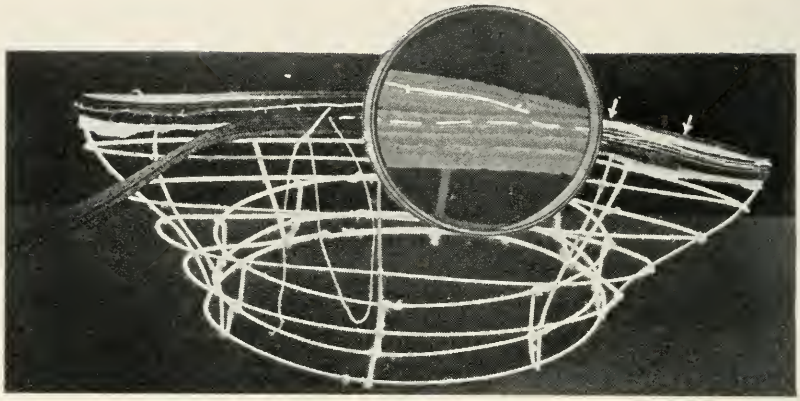
Buttonhole first row of straw securely to the crinoline fastened on the edge wire for that purpose, sewing from the right side to right side back, back and around to the front and right side again. Pull straw securely as you sew, *with the thought in mind that anything shaped over the outside of a frame tends to be larger*, unless, aside from the wire frame being made small to take care of that, each row of straw is close against the frame.



The first row of straw. In this case it has been started on the far side because this is the point that will be covered by trimming. The enlarged section shows the button-hole stitch with which the first row is fastened to the crinoline edge. This is the only row which is fastened to the frame, and this stitching is later ripped loose when the frame is removed. Care must be taken to get this first row absolutely straight and even, as the entire effect of the hat depends on it. One strand of straw should project above the edge-wire because of the tendency to pull down as you sew.

On reaching the right side where straw was started, overlap the second row of straw squarely over the first, for a space of one inch before you begin to drop it to the level of the second row. Sew both securely together with the same thread you have used to buttonhole the black straw on the edge. This thread eventually acts merely as a basting thread and can be removed much easier if made with light thread on dark straw, or vice versa.

Thread a medium milliners' needle with 00 milliners' cotton in *black,* and start sewing the second row of straw to the first row by gradually



Starting the second row. Before being gradually dropped to the second row the braid is overlapped on the first row for the space of two inches (see the two white arrows above). The braid is now sewn with the permanent (long and short) stitch, as shown in the magnified section. This, of course, is done with thread to match the straw. Contrasting thread is used here for purposes of illustration only. When the braid is dropped to the second row take care that the space between the rows is the same as the braid manufacturer has arranged between the single strands.

running the second row of straw down onto the first row. *This graduation of running the braid down to start a second row should cover a space of at least four inches,* so that the change from first to second row is not pronounced, as the entire edge-line of the finished shape is dependent on how evenly this first row of straw is sewed and kept secure on the edge-wire. The greatest care should be shown at this point, especially where second row runs over on the first, to see that the line of the edge is perfect.

The Permanent Sewing

When starting to sew the second row to the first, which is the beginning of the permanent sewing, cease to buttonhole, and use a stab stitch or stitch through the straw back and forth, using *first few rows of straw.* The entire shape of hat is dependent on the security of line made by first shaping the damp straw exactly like the frame and second by securely sewing. After gradually running the second row of straw down on to first row until the permanent spacing is reached, determine spacing of your hand sewing by the spacing the manufacturer has used in the machine sewing of the original strands, so when completed it will have all the appearance of being hand-sewed (see illustration).

The principle of shaping and sewing straw so that the finished hat will not hoop in some places and bulge in others is this: Hold the piece of straw which you are sewing firmly, and pull the thread evenly. Do not pull it tight and then suddenly let it out, as this always makes an uneven place.

Now let us again look at the illustration. For this particular hat, sew the first five or six rows, holding each row firm to the last one sewed, because the brim keeps about the same size for several rows around. You will notice from both the front and back views that there is a decided ridge in the shape after about five rows are sewed. This ridge is best seen in the back and continues

around the front. The line which appears from the front view as the edge of the brim is the beginning of the roll, as the edge is back out of sight, and is smaller than the roll, which is the largest circumference of the brim. There now comes the necessity for shaping the straw as you sew. This is done by a principle that can only be described as "pushing" and "pulling." In other words, when you wish to increase the circumference of the shape you are sewing, you push the braid back slightly as you sew it; and in the same way the braid is pulled almost imperceptibly as you sew when you want to reduce the circumference. While this must not be done so violently as to make a pucker in any one spot, the general effect becomes very apparent after one circumference is sewed. After sewing around five or six times as the wire frame guides, start to slightly "push" the straw you are sewing. Continue to "push" as many rows as are necessary to make extra circumference for the roll. *Be sure to sew one whole row larger than the wire frame calls for in shape,* as when you start to pull the straw in slightly to make the downward turn in the roll, the last row of straw that was pulled for the outer edge of the roll will turn down, thus taking off one row you have planned for the edge. After reaching the downward turn in the roll, "pull" enough to keep the damp straw firm against the frame. Keep looking from the underside of the frame, to see that each row is just right. Continue to hold the straw firm, shaping

it as you go until you reach the smallest circumference, which is shown by the illustration to be about three-quarters of the way down on the depth of the brim. Start to sew the straw more loosely for three or four rows, then gradually increase by "pushing" straw until you have made the exact size of roll which makes the facing line. Hold the straw firm again, shaping the facing line in.

Take great care, in shaping the straw for facing, that it is not pulled too much, thus making the hat too small in the headsize. After sewing at least four rows up inside above the facing line the brim is completed so far as straw sewing is concerned.

Removing Frame and Pressing

For a shape of this design, which has decided lines, I should advise lacquering the straw all over with a brush before removing from the wire frame. After lacquering wait until entirely dry before removing the buttonhole stitching at edge wire—*which should be the only sewing that holds straw to the frame.* If by accident some stitches have been caught around wire, clip and restitch before removing.

After slipping straw shape from the wire frame the next point is to carefully press the straw shape. On this shape the pressing would have to be done from the right side. Rolls of cloth should be slipped inside to make pads and protect

the shape. A damp cloth should be placed on the part to be pressed and a small electric iron used. Fine makers and copyists sew the straw so perfectly that the pressing is reduced to a minimum, as one can readily see how easy it would be to lose the line of a hat in pressing.

After pressing on the outside the lacquer will be dulled, and this can be touched up after the headsize edge of frame is wired.

I should advise the temporary wiring of all headsizes for hats made by this method, the wire being placed next to the head and removed after the crown is made and tacked on, which supports the brim. After wiring the headsize the top inside edge of brim should be securely wired with frame wire, then buttonholed back about one-quarter of an inch from inside edge of brim. After joining wire securely in back finish inside of brim with one or two rows of straw, cutting both rows of straw at the back and dovetailing the ends together by ripping the five strands of each end about one inch from the end and interlacing together.

After lacquering spots made dull by pressing, hold the entire shape over the steam, letting the steam filter through from the wrong side to soften the frame so it will not be stiff and set looking. If the lacquer seems to give the hat too heavy a gloss, sponge entire hat with alcohol when brim and crown are completed. This will dull the lacquer.

The plaque of straw braid is capped as shown above by pulling slightly on the straw while it is being sewed. It should be mentioned that the pull on the straw is slightly exaggerated in the picture to emphasize the process.

CHAPTER XXII.

STRAW SEWING

PART III—SEWING THE STRAW CROWN

FOR making the crown, a wire crown should be made, if a manufactured one cannot be secured, as a pattern or block to shape the straw over.

Designers in various workrooms seem to differ

as to the best place to start sewing straw for a crown. Some workers start at the base of the crown and work the straw toward the top; others start at the center of the top-crown and sew from the center out. There is one great disadvantage in the method of starting at the base of the crown to build. Suppose a crown is higher on one side than the other—as they very often are—and the straw sewing is started at the base of crown and continued row on row. It is evident that the centre of crown must soon be thrown out of line at one side. This makes the base of the crown perfect in technique, although the base is nearly always hidden either by the brim of the hat or the trimming, whereas the part of the crown which is seldom, if ever, covered must show up the uneven sewing.

Look at the other method of construction and see its advantages. I will use for illustration the crown on the hat we are making of lisere straw. First visualize the shape of the crown tip, down to where it starts to turn down. After looking at it carefully measure the crown tip from front to back and side to side, to find its proportion. Dampen with warm water a couple of yards of your straw.

Shaping the Crown Tip

It is imposisble to sew an oval "button" by using the full width of straw, so rip one strand of straw loose from the upper edge of the full width and start to sew with this one strand, shaping it

Shaping the Crown Tip

This shows the plaque of strand straw for the crown tip. It is started with one strand which is sewed in the shape either oval or around which the finished crown is to be. After sewing a few times around, a second strand is added and the third and fourth strands follow as soon as the sewer finds they will fit into the plaque. The white crosses in the cut above show where the three succeeding strands were inserted. At about this round, while still flat, the plaque should be pressed on the wrong side under a damp cloth.

the exact shape of the finished crown tip. Continue to sew around about a half dozen times with one strand, then try sewing with *two* strands and see if you can, by pushing the straw, sew around the oval surface without the little oval plaque you have made capping or turning up.

If it is time to use the two strands the oval will stay flat, but if you find two rows make the

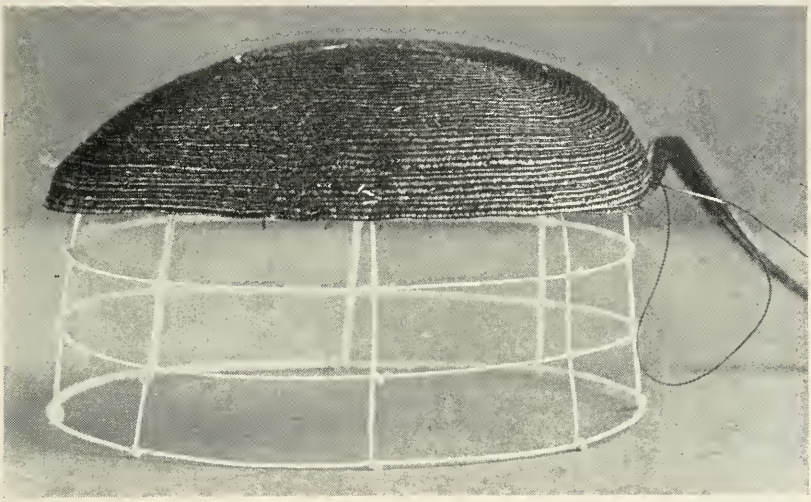
small oval plaque curl up on the edge, continue to sew with the one strand for a few more rows until two rows can be successfully handled around the curved surface. After sewing several times around with the two strands, try by letting in three and later four, and finally the full width of straw.

Here is a point that should be noted: Each time you add an extra strand to the plaque you are working on, it should be started as you are going around one of the *ends* of the oval, as this tends to keep it the right shape. If the two strands are let in at the oval in the front, the three strands should be let in at the back or opposite end of oval, the fourth and fifth strands should be let in in the same manner, alternately.

Fitting Crown to Frame

It is understood that at this stage the straw is not attached to the wire frame at all, but is sewed in the hand, though every now and then it should be tried on the wire shape to see if it is being sewed in the right shape. The crown shown in the picture is not perfectly flat. It curves down; therefore the straw should be held firm, after the full width of straw is let in, to shape the straw as the crown indicates. When your straw is nearly the right size for the tip, place a damp cloth over the plaque and press with a hot iron. Shape your plaque as you press, the exact shape of the finished tip. Try it again on crown block and if it fits, then sew one whole row of straw larger than crown tip indicates,

Fitting Crown to Frame



After the oval crown tip has been capped—that is, turned down—for one entire circumference, fit the plaque to your wire crown block as shown. If it does not fit accurately at this stage it will be necessary to rip the stitches back for a few rows and sew it over again. After the straw shape is sewed half-way down the side-crown start to push the straw slightly as you sew it to enlarge the circumference.

because when you start to pull the row of straw for capping, the last row, sewed straight around, will be turned down. The only way to have a crown-tip the right size is to make it one row larger than desired before starting to cap. After capping, by pulling slightly the piece of straw you are sewing, continue to sew without pulling or pushing the straw until half the side crown is completed. Start to push the straw slightly for the remainder of the side-crown, as this will increase the crown evenly and make a large enough circumference for the crown base. Keep slipping straw crown over wire block and, if at any place the straw seems to hoop or have too much full-

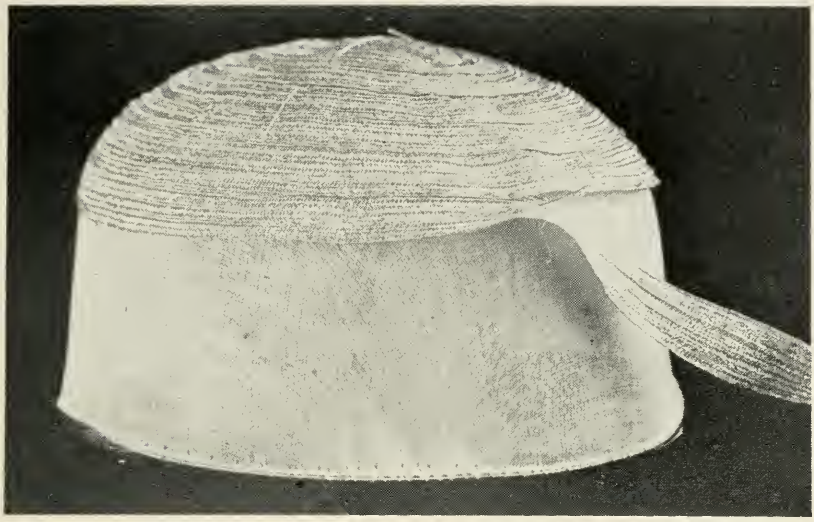
ness, rip and resew. If it is wrong at this time, no amount of pressing will make the crown the right shape.

When by measurements and trying your straw on block you find it is the right size, gradually run your straw under the last row, to finish crown at base, the way you ran the second row of straw down on the first row in making the brim. This time the graduation in running the straw off, is done underneath, while on the brim the straw was graduated down on the right side.

Completing the Hat

Your crown is now ready to press. Take great care in pressing, not to get crown out of shape. After pressing thoroughly, slip the crown back on the wire shape and lacquer the surface as was done with the brim. After drying, remove the straw crown, and, tying the back to the brim to hold it in place, slip-stitch crown to brim. Your straw hat is now completed, and if care has been taken in making the frame and shaping each row of straw as explained, you should have a perfect copy of the design desired.

Can you not see that this method of constructing a crown is far better than starting at the base to build? *In crowns that are higher on one side than the other, extra strips of straw may be inserted at the base of the crown and graduated at both sides so the workmanship is perfect.* Is it not better, if there are to be any extra pieces inserted, to have them set in at the base of the crown after the main line of crown has been made?



An example of fancy straw partially shaped to the crown block. The cape-net block is used for this type of straw as the soft braid would sag between the wires of a regular frame. However, this block is removed after the crown is shaped as in making the stiffer straw crowns. In starting the crown, the tip must be shaped in accordance with the finished hat, but the braid is folded in half for the first few circumferences instead of being ripped back as was done with the strand straws. This type of braid is never dampened before sewing.

CHAPTER XXIII.

STRAW SEWING

PART IV—PRINCIPLES APPLIED TO OTHER STRAWS

IN choosing straw model in the previous chapter we decided on lisere. How would the making differ had we chosen Milan? Milan straw would be just as suitable for this design, as Milan straw is also firm enough to retain the shape without a frame underneath. Hemp braid would be equally

suitable, *but hemp would not have enough body to preserve the line of the brim without some kind of light frame underneath.* In this case, instead of using wire frame to shape the straw over, one thickness of cape net should be stretched over the wire frame as described in the lesson on blocking cape net. This light-weight cape-net frame should be removed from the wire frame and wired as described in the lesson on preparing frames. The top or inside of this frame should be lined or covered with satin or taffeta, whichever the customer desires. The frame is now faced on the top. The taffeta or satin should be cross-stitched over on the top of the brim, so that it not only binds the frame with material, but provides something on which to sew the first row of straw. *Do not dampen hemp straw.* Sew the hemp exactly the same as the lisere was sewed except that you catch the first row of hemp to the silk, extending the braid one strand above the top edge of the brim the same as one strand of lisere was extended beyond the edge of wire frame. Continue to sew all succeeding rows to the first row of straw, *not* through the cape-net frame.

The hemp crown should be made exactly as the lisere or Milan crown. It is not necessary to use the cape-net foundation under the crown. Use French lining in the hat to support the crown.

This method of sewing the straws which the manufacturers have prepared by stitching strands together, such as lisere, Belgian split, Milan, hemp and any other straws made up of strands will

always be the same as long as hand-made straw hats are in existence. The question as to the frames underneath may differ from time to time, but it is safe to say that the day of straw or fabric hats made on a stiff frame is past. Each year the hats grow softer and softer, requiring a higher type of workmanship.

How the Second Group of Braids Is Handled

How shall we handle the woven straws that are not made up of strands stitched together but come in various widths, where there is no opportunity of ripping the strands to start the crown tip or of ripping the strands for dove-tailing where a couple of rows are used to finish top of brim or facing? Under this heading comes horse-hair braid and all the fancy straws made of all kinds of material, such as Angora straw, cellophane, felt and straw woven into a fancy straw, chenille and straw combined, wool and cellophane combined, and in fact any straw that comes woven in pieces an inch or more in width.

In the choice of these woven straws, what hats are they best suited for? Let us take the Angora and sports straws that are made of felt and straw combinations. It is easy to see these straws are best suited for soft small hats which may be used for tennis, golf, motoring, etc. Every smartly gowned woman needs one of these hats to complete her wardrobe.

The first question that arises is about the

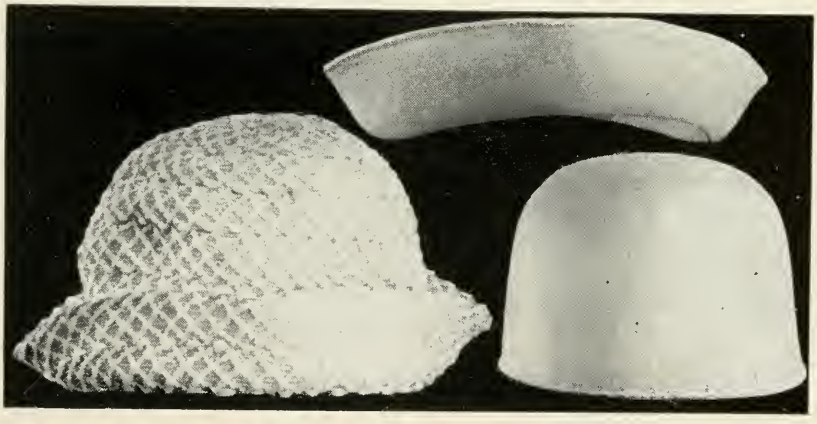
frames for these models. The Angora, felt and cellophane straw combinations are secure enough in themselves, so no permanent frame is required underneath. A wire frame should be made as a pattern or block, however, and the straw is shaped over the frame. In sewing the brim of woven straw, the method is exactly the same as with the strand-straw, except these straws have one advantage—*in the lower edge of nearly all woven straws there is a thread run through that may be pulled up to take the fullness out of the lower edge of straw,* so one is not entirely dependent for shaping on pulling each row of straw as it is sewn. This thread may be pulled after each row is sewed, just before the next row is sewed on. This, together with the fact that no straw of the nature mentioned can be dampened, offer the only points of difference in brim sewing, from the strand-made straws.

When it comes to the crown, the only difference is in starting the crown tip. The straw cannot be ripped to a single strand to start the tip. It is therefore necessary to fold the straw together, making it half the width at the place of starting. While all woven-straws have this handicap, they also have the same advantage for making the crown as mentioned in connection with the brim —the thread in the lower edge of straw may be pulled up to make it circular in shape, which takes care of the fullness. After folding straw together on the width to make it narrow enough to shape the tip, start sewing the tip. Pull the thread up

in the lower edge of the straw, winding the end securely around the unfinished end of the straw so it will be available constantly for pulling up the straw all through the making of the crown. Make the small centre or button the same shape as the finished crown is to be (round or oval). Continue to sew row after row, shaping and pulling the thread as you go. This sewing should be done in the hand, using wire crown only as a pattern.

The crown is now ready to attach to the brim. If the shape seems very soft after mounting the crown, brace-wires may be used inside of the brim, as described in the lesson on blocking and wiring the cape-net frame.

In this field of fancy straws there are a great many soft, silky straws that are very thin. These are often used for facing taffeta or organdie hats. Where a cape-net frame is used for fitting the taf-



Finished hat made of fancy straw showing cape-net blocks over which crown and brim were shaped during the hand-sewing.

feta, a crown is sometimes made of these straws. The same method is used in sewing the straw as with the Angora or sports straws just described. If the crown-tip is found too difficult to handle, the tip may be made of whatever fabric material is desired and the side crown sewed of the straw.

Handling the Wide, Heavy Straw

Among these fancy straws there are some very rough straws in which the manufacturer uses a great deal of dressing. These straws are always dampened with warm water to make them pliable for sewing. The sewing of these straws is the same as for all others mentioned, except that in making the brim each row of straw is made separately, being cut off at the back, and the ends joined together by overlapping, and slip-stitching together.

Sew Each Row Separately

For all wide straw it is better to cut off each row of straw, and either slip-stitch the ends together, or, if made of strands, dovetail the strands together.

In making crowns of heavily lacquered straws that are coarse in weave, it is impossible to mould them into an oval for crown tip. Instead, sew strips across the crown tip, letting the strips run down just far enough so the unfinished ends may be covered by attaching the side-crown strips, which can be easily sewed around.

Horsehair Straw

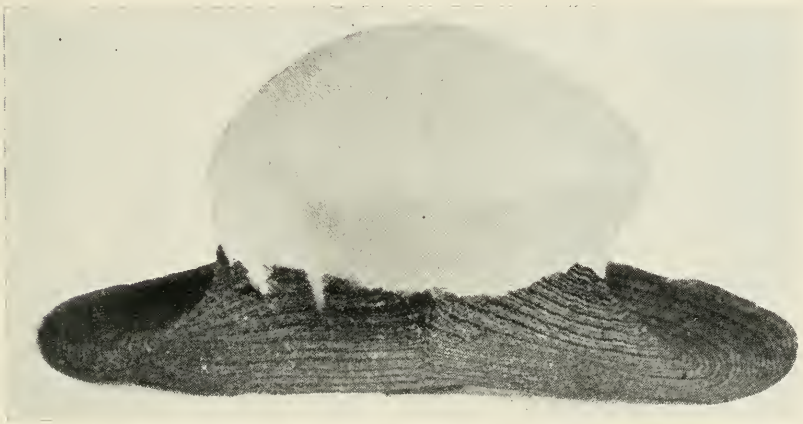
We have left just one other problem in sewing the type of straw that comes by the yard. This is the horsehair straw, which is a woven straw and includes all the lace straws made of horsehair. For these straws it is necessary to use a skeleton frame in wire (see lesson on skeleton frame in chapter on copying French hats). After making a wire frame in the shape desired, the facing of the frame should be covered with two thicknesses of Malines. The Malines should come over the edge-wire onto the top. The frame is now ready for sewing the horsehair braid. Sew the first row of braid to the Malines that has been brought up on the top for this purpose. Extend the horsehair straw as far beyond the edge as required by the effect desired. Sometimes a soft edge of Malines is used beyond the edge of the frame to soften the edge, before sewing the first row of horsehair on the frame. Cut off each row of horsehair braid when sewing the brim and join by slip-stitching each row in the back. In making the crown, start at the crown-tip to sew; fold the straw together, as in the other woven straws; make a small oval centre the line of crown desired and sew row on row, without cutting the horsehair, until the base of the crown is reached. This crown should be shaped over a wire crown, as all others have been.

A Type of Straw Plaque

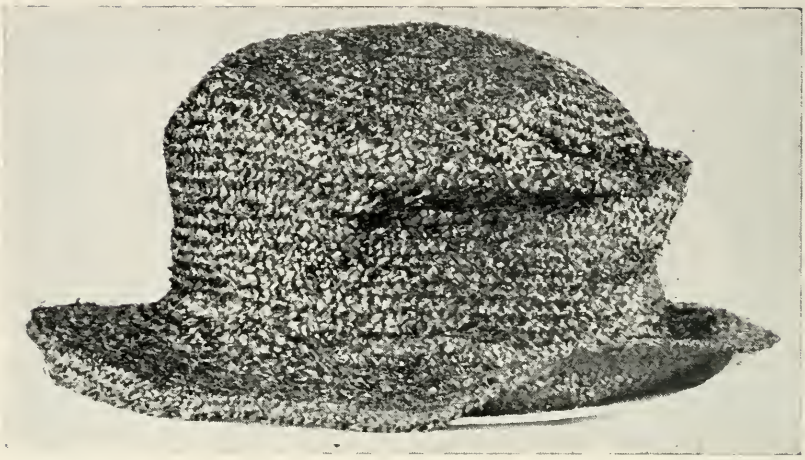
A peanit straw plaque, just as it came from the manufacturer. The white basting shown near the center indicates where the headsize is to be cut, and the basting near the outer edge shows where the edge of the plaque should be cut away, leaving the plaque the right size for the top brim covering. These lines are determined by placing the under-brim on the plaque and tracing around the headsize and edgewire. The material cut out is not wasted. The oval piece cut from the headsize is used for the crown tip. The surplus left from the edge is used as a side crown to finish the oval tip cut from the center.

Straw Plaques

Straw plaques, which come in Tagal, peanit, horsehair, Leghorn, etc., are valuable when one desires to make a hat partially of straw, combined with satin, taffeta, duvetyn or organdie and does not wish the effect of row after row of sewed straw. These plaques or flats of straw may be fitted on either the top brim or facing of a large sailor or mushroom frame. They are cut out in the headsize, as is done with material coming by the yard. They are then slashed and sewed to the headsize. The outer edge of the placque may be turned in and slip-stitched or finished by inserting an unfinished cord. Sometimes a portion



A plaque after the surplus has been cut from the edge and the crown tip cut from the center. The plaque is fitted to the top-brim and sewed with long-and-short stitch in the headsize. The headsize is slashed only for irregular shapes, not for a sailor. The plaque is cross-stitched over brim edge, the same as velvet, satin or taffeta. This illustration shows the back of the hat, with both edges of the plaque turned under and slip-stitched, as fabric hats are joined.



The crown completed and mounted to the top brim. The crown is made of the surplus material cut from the plateau, as described in the first illustration in this chapter. The side crown is over-handed on the wrong side to the tip. The joining at the back of the side-crown is made by slip-stitching, the same as the back brim is slip-stitched together. The completed crown is finished at the headsize by turning in and slipstitching to the brim. The entire top of the hat is now completed. The facing may be made of any fabric material desired, the edge of the facing being finished on a wire. Three different kinds of plateaus have been used in these illustrations, to show a variety of textures.

of the top or brim facing is made of the placque and the remainder is finished with satin or taffeta. The process of handling straw placques is adequately covered by the illustrations and descriptions herewith.

Advantages of the Methods Described

The two great advantages in sewing straw by the method shown are these: First, hand-made straw hats are no longer the clumsy things they used to be when the straw was sewed securely row

on row to a thick frame, making an ugly, heavy hat. Second, the training in line that comes to a maker of hats, who learns to visualize the shape of crowns and brims perfectly enough to make the shape in the hand, using the frame only as a pattern, is invaluable. It is but a step for them to develop into trimmers and designers, after this training.

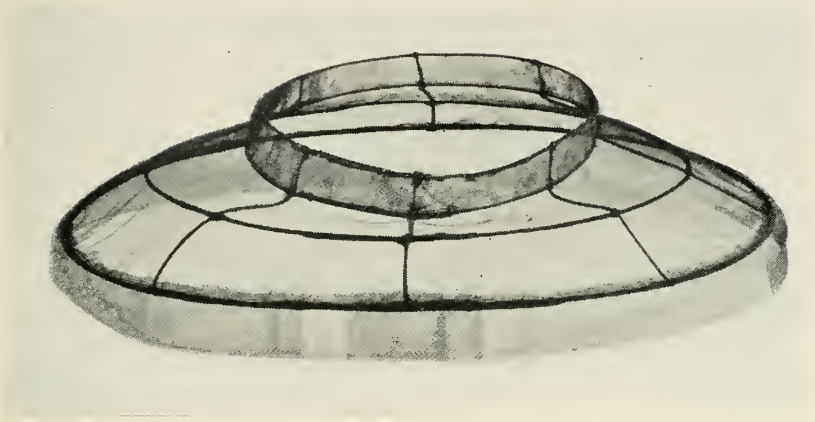
Millinery in its highest sense always was and always will be a combination of beautiful lines and colors. Each year experienced workers try to express more skillfully their concept of *line.* In the past most of the real style was left to the trimmer, to add the dash of line in the trimming; *but to make a hat successfully today, either of straw or velvet, a worker must make the line stitch by stitch, shaping and moulding as she goes.* This is the chief part technique plays in the millinery field today.

A typical example of finished transparent hat.

CHAPTER XXIV.

TRANSPARENT HATS

IN the previous chapters we have been studying two types of hats, i. e., those made of *fabric materials* such as velvets, velours, satins, taffetas, faille silk, etc., and those made by sewing the three types of straw. You will remember that the *wire frames* used for all these hats have served one of two purposes—either as a *block to stretch willow, cape or rice net over, or as a block to shape*



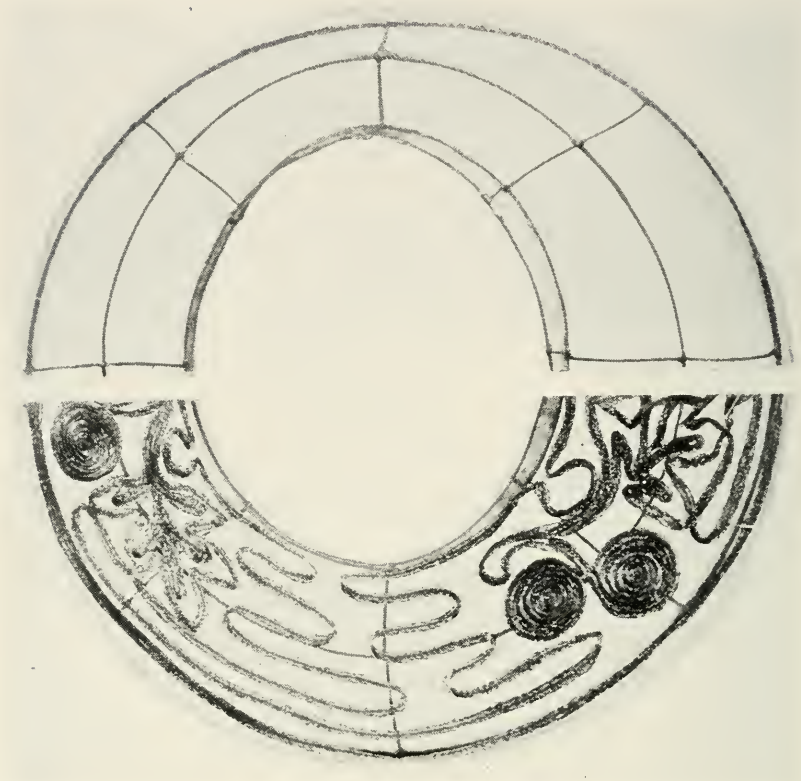
A typical example of a frame suitable for a transparent hat. This frame has been prepared by winding all the wires with Malines. A covering of two thicknesses of Malines has then been placed on the top brim and another similar covering on the underfacing. These coverings merely act as a background or lining for the transparent plaque which is to cover the finished brim. The soft Malines edge has also been attached.

hand-sewed straw on. In neither of these cases is the wire frame used as a permanent foundation for the finished hat.

A Third Type of Hat

In a previous chapter on *Copying French Hats,* a transparent hat is shown. Underneath the hat a wire frame is pictured which is *used as a skeleton frame to be covered with Malines and lace.* This represents a separate type of hat known in the trade as *transparent hats.*

All the hats we have considered in previous lessons are what might be termed *bread and butter* hats or *practical smart hats*—the question as to



Above, top view of the frame before being covered with the plaque. The circular wire in the center is necessary as a brace and its position is decided partly by the need for extra strength and partly by the design on the plaque which is to cover it and which conceals the brace wire as much as possible . The lower half illustrates the brim covered with the Malines and horsehair plaque. This has been slashed and finished at the headsize, as is done with any material and the outer edge turned in and slip-stitched to the edge wire.

these hats being dressy or not depending on the choice of material and trimmings used to carry out the design. But the transparent hats serve but one purpose—that of a dress hat. There is no such thing known as a tailored transparent

hat, and therefore the transparent hat does not receive as much attention in a school where millinery is taught as the other more practical hats, made of durable materials.

The Question of Materials

The fabric materials used for making transparent hats are Malines, tulle, net, laces, organdies and Georgette crepe. Horse-hair by the yard is also used, both plain and fancy. Fancy plaques or plateaux made of a combination of lace, Malines and horse-hair, or plain horse-hair, straw plaques or plateaux, are also frequently used.

Covering the Wires

The first illustration shows a large mushroom shape. The wire frame has first been wound with Malines so the wires are covered as well as the entire frame. For winding wires fold narrow strips of Malines into four thicknesses, and sew the end of one folded strip fast to back of the headsize wire. Start to wind round and round, working whichever direction seems easier, until the entire strip has been wound. To fasten the end bind it securely around the wire. Start at this point to fasten and wind again, until every wire used in the entire frame is covered with Malines. Be sure there are no ragged unfinished edges left.

Next start to place your Malines for covering top brim. Fold Malines double, pin the double thickness to the front, back and sides of the *top* brim. Cut and slash the headsize and pin the Malines in the headsize and on the edge.

At this point hold the wire frame with Malines partially fitted, over a steam-kettle. Work out the fullness as you steam, by removing the pins and replacing them as required. When this is completed sew with long-and-short stitch close to the wire, binding the Malines over the edge.

Now cover the underbrim. Fit two thicknesses on underbrim, slash, steam and pin as before, and bind under-facing up over the edge-wire. Sew with long-and-short stitch close to the wire.

Making the Soft Edge

The frame is now properly interlined and ready for the Malines edge which is to extend beyond the edge of the fitted brim to add softness. For making the soft edge cut two thicknesses of Malines, twice the width of finished soft edge, run a basting thread of contrasting color through the centre of the double Malines strip, and fold on the line of basting. After folding together, stretch carefully in the hand, baste the inside or unfinished edge of shaped fold on the outer edge of top brim, arranging and pinning the soft edge as seems most becoming. It can be turned down,

Making the Soft Edge

Making the Malines crown which is later to be removed from the block and used as an interlining for the horsehair or lace crown. This is made of six thicknesses of Malines, pinned on the patent porous cable wire block on which it can be steamed and blocked, the steam filtering through without coming in actual contact with the material. The Malines is pinned, steamed and stretched until all fulness is worked out.

as the illustration shows, or extend out straight from the brim. Sew with long-and-short stitch, close to the outer edge-wire of the frame.

Joining Malines

Leave joining until the last thing. *To join Malines do not stitch in a seam as other joins are made.* Lay open the fold, slipping one end of the unfinished fold inside the other, overlapping at least 1½ inches. Then continue to sew along the upper edge of the overlapped joining with long-and-short stitch the same as is used for mounting the entire fold.

After sewing, trim close to stitches all unfinished edges left from sewing.

Fitting With Fancy Plaque

The second illustration shows one-half of the brim finished with a fancy plateau or plaque made of Malines and horse-hair straw sewed in fancy design. This plaque was bought complete just as shown here, with the exception that it has been cut and slashed in the headsize. After slashing the headsize, it is pinned and fitted the same as the interlining of Malines. You will note that the edge of the plaque is finished with a row of straw. This edge is slip-stitched to the edge of the frame, catching the stitch into the wound Malines edge.

Some Points on Frame-Making

The question as to how many braces or brim wires should be used in a wire frame for transparent hats is governed by the material to be used on the outer covering and by the strength needed to keep the completed hat in line.

The frame for any *medium-sized* transparent hat, that is not extreme in line, will keep in shape by using four brim-wires, instead of eight as shown in the illustration given, *which requires eight wires because it is a large hat.*

The arrangement of circular braces is deter-

The finished crown of horsehair braid under which is the Malines interlining shown in process of making in a previous illustration. The horsehair braid is capped and sewn in the same way as described in the chapter on straw braid. It is then steamed and blocked as was done with the Malines interlining.

mined by where the braces will show the least, using as few as necessary to protect the shape of the brim. In using a fancy plaque as shown in the illustration, note how the circular brace is placed to strengthen the brim and *also that the design on the plaque hides the brace in finished hat.* The two rules given for braces apply to all transparent hats, i. e., place first for strength and second where best hidden by the material.

Other Methods of Preparing the Frame

The preparation of frames for all transparent hats is the same with the exception of those made of organdie and Georgette crepe. For organdie and Georgette the wire frame is often made of colored wire to match the outer material, and is not wound. If the wire is wound, of course the material of the finished hat is used for winding.

The question as to how many thicknesses of Malines should be used on the brim either as an interlining for horse-hair plaques, laces, etc., is governed by the effect desired. Some customers look better with a thicker brim-covering than others. When the brim of transparent hats is made of Georgette crepe or organdie, one thickness of material is sufficient as the beauty of these hats is in their delicacy.

Covering With Horse-hair

When using horse-hair by the yard for covering brim, sew first row to the frame, as the French way of straw sewing is described, under chapter on straw-sewing.

Some Fancy Brim-Finishes

A variety of finishes may be used on the edge of the brim. If a soft Malines or horse-hair edge is not desired the edge may be bound either with ribbon, or a narrow binding of satin or taffeta. Organdie and Georgette may be bound with the

same material or a fancy edge used as described for the Malines edge. Any transparent hat may be finished on the edge with a narrow ostrich band or an edge of foliage or flowers. The fancy feather or flower edge finishes are sewed securely around the edge of the brim, usually as a finish for the unfinished edge left from sewing material by the yard. The question as to preparing and covering the brim has been gone into sufficiently to cover all types of transparent brims.

Steaming and Shaping the Crown

Let us see (in the third illustration) how crown foundations are steamed and shaped of Malines, Georgette crepe or organdie. Transparent *crowns* are interlined the same as the *frames for brims* are prepared or interlined for outer covering. The third illustration shows six thicknesses of Malines stretched, steamed and pinned over the wire crown block. These crown blocks come in all the shapes modish crowns require. For a Malines crown, as the illustration shows, pin six or more thicknesses of Malines together. Pin the Malines front, back and sides, stretching it securely over the block. Hold over steam, letting the steam filter through from the underside. Continue to steam, stretch and pin until practically all the fullness is worked out. Then remove the Malines from the block and use it for interlining the horse-hair or lace crown.

The fourth illustration shows the Malines in-

terlining a shaped horse-hair crown. The horse-hair is shaped, capped and steamed over the same block as the interlining of Malines. For sewing and capping horse-hair the same method is used as shown in the chapter on straw-sewing. This horse-hair crown is of course used with a transparent brim covered with horse-hair. It may be noted by the way that the shaped horse-hair crown is one of the hardest to make.

The Finished Hat

The fifth illustration shows a finished transparent hat covered with lace. The brim and crown are prepared as just described. The lace makes the transparent edge in this design and lace is draped soft over the steamed Malines crown.

Ribbon is used as trimming to finish around the crown. Simple tied bows with long ends are tied at both sides.

Georgette crepe and organdie crowns are steamed and shaped over these same crown blocks. Two thicknesses of Georgette crepe are used over the crown-block, one thickness of organdie for organdie crowns. The outer material may be draped or made in a soft Tam for either Georgette or organdie hats. Flowers are usually used around the crown of organdie hats, or bows made of the organdie may be tied around the crown as is done with the ribbon shown finishing the transparent hat made of lace.

CHAPTER XXV.

SUMMARY OF MILLINERY MATERIALS

I—MILLINERY WIRES

FOR occasional reference while working in the various stages of hat-making it may be helpful to have a list of the principal wires for hat construction, and their uses. Hence this chapter.

Cable Wire

1. *Cable Wire*—(a) The most common use today of cable wire is as a substitute for cable cord, when making a finished cord. For example, on a horsehair hat where wiring is necessary on either the under-facing or top brim, a cable wire covered with velvet, satin, taffeta, Georgette crepe, etc., as described under "Finished Cords," will not only serve as decoration in giving a touch of color to the brim, but will also brace or support the brim.

(b) Cable wire is sometimes used in place of frame-wire for wired finishes on facings, flanges, sectional facings, bindings, etc. Cable wire is chosen in these cases because it has a much heavier covering than frame wire and gives the effect of a cord set in.

Satin Edge Wire

2. *Satin Edge Wire*—is used in the same way as cable wire. These two wires are so near alike in appearance, in some workrooms the same name applies to both. The difference is in the weight of covering used by the manufacturer in the wire, the Satin Edge Wire has less covering, thus making a finer cord or finish than the cable wire.

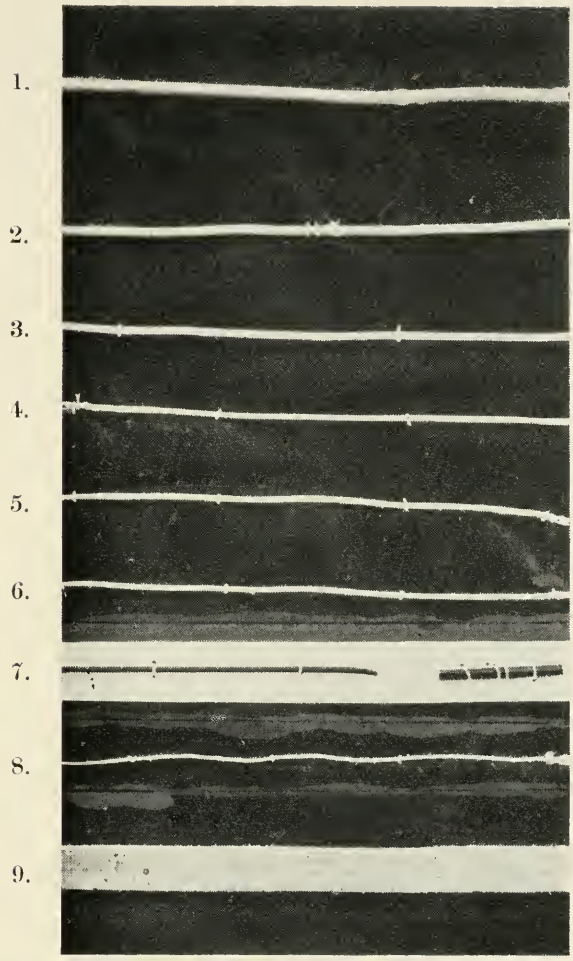
Heavy Brace Wire

3. *Heavy Brace Wire* (a) is the heaviest frame-wire known, and is used in wire-frame making where a very secure block is desired for stretching heavy willow. (b) Heavy brace wire is also used for wiring the edges of willow or cape-net frames where a stiff, strong wiring is needed. In fact it is used at any time during the making of a hat where any part of the hat needs a firm, secure wiring.

French Frame Wire

4. *French Frame Wire* is a lighter-weight frame-wire than the wire just mentioned and is used when lighter wiring is sufficient to hold the hat in line. French frame wire is always preferable to heavy frame wire in wiring edges of facings, flanges, etc., because it makes a softer and more graceful creation.

French Frame Wire



Millinery wires described in this chapter.

Lace Wire

5. *Lace Wire* (a) is used for wiring lace, where the lace is used as a bow or a standing effect is desired. (b) Lace wire may be used in wiring the edge of a willow or cape-net frame where a softer edge is desired than frame wire will give.

Bob Wire

6. *Bob Wire* is a light-weight lace wire and is used in very soft laces and Malines where the heavier lace wire would spoil the effect by making too stiff a line.

Iron Wire

7. *Iron Wire* (*with clamp for joining*)—(a) Iron wire is the only uncovered wire used in millinery. It is the stiffest wire made and is often used in place of heavy brace-wire when a very secure wiring is needed. For example, iron wire might be used as the edge-wire on a wire frame when the frame is to be used as a block for stretching heavy willow.

(b) In making soft and transparent edges for tulle, Malines, Georgette crepe and organdie, iron wire plays a useful part. In these cases the circular iron wire is joined with a clamp. (The clamp is slipped on one end of the wire and pressed hard on that end with nippers. The other end of the iron wire is then slipped on the other end of the clamp and pressed hard with nippers, thus joining wire in a ring.) Over this very secure circular wire, material may be stretched and steamed until a great deal of fullness is steamed out of the material. After leaving material pinned until dry, remove from the iron wire. The material will be very circular and follow the exact line of the iron-circumference wire.

Tie Wire

8. *Tie Wire* (a) is mainly used for tying frame wire when making wire frames. (b) It is sometimes used in wiring the edge of petals for handmade flowers.

Ribbon Wire

9. *Ribbon Wire* comes in different widths, for different uses. (a) The sample shown is the medium width. This width may be used for bracing soft cape-net brims. A brace of the ribbon wire is securely sewed to the front, back and sides of a very soft frame, thus bracing or securing the frame without getting it out of line as the heavier frame wires would be apt to do. (b) All different widths in ribbon wires are used in wiring ribbon for bows, the width differing for the different width of ribbons.

The nine wires discribed above play a great part in millinery as each one, when rightly chosen, protects some line or effect made either in blocking, making or trimming a hat.

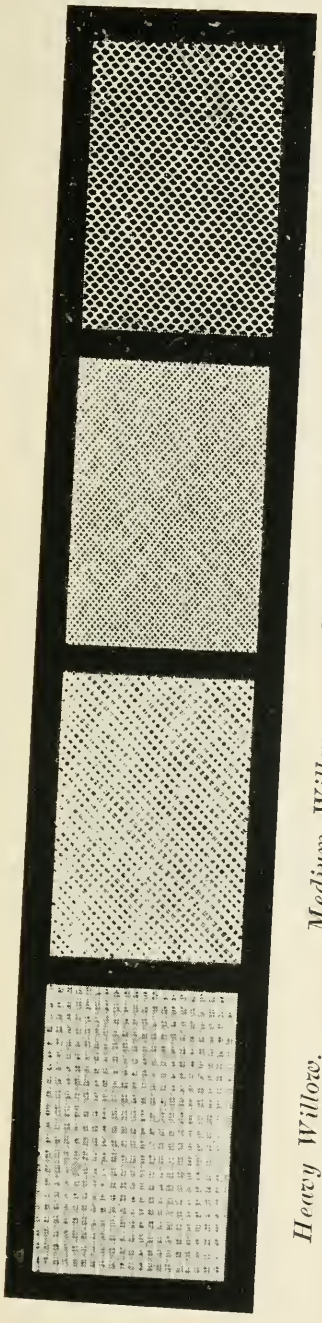
CHAPTER XXVI.

SUMMARY OF MILLINERY MATERIALS

2—BLOCKING MATERIALS

IT is as essential to choose the right material for blocking a frame as it is the material with which the hat is to be made and trimmed.

I have intentionally left out buckram as a blocking material. I realize that buckram is still used in some of the millinery schools, but during all my trade experience I never saw one inch of buckram used in any form. It is a material long ago outgrown in the trade because *modern millinery deals with soft frames.* Even when a secure frame is used it *never* should be made as stiff as buckram is bound to make it. Buckram is to millinery what tight-fitting crinoline linings used to be to dressmaking, a thing unheard of today. It is high time that buckram should be thrown out of all millinery classes. If a school cannot afford willow or cape-net for blocking it would be far better not to teach blocking frames at all, as in handling the buckram frame it teaches everything just the contrary to the uses of the trade. More criticism comes to the trade schools from this source than any other.



Heavy Willow. *Medium Willow.* *Undressed Willow.* *Cape or Rice Net.*

1.—Willows—Heavy, Medium and Light Weight

(a) Heavy Willow is used for blocking over a wire frame when a stiff tailored effect is desired.

(b) Medium Willow is used for blocking medium sized hats where a softer effect is desired than that given by using heavy willow. (*Note*—let it be clearly understood that heavy willow is not always used for large hats and medium willow for medium or small hats. The choice is entirely governed by the effect desired. If a large hat is to be floppy, then medium willow is used; if a small or medium hat is to be stiffer than medium willow will make it, then use heavy willow for the small hat.) On general principles heavy and medium willow are used for velvet, duvetyn and the heavy fabric materials, thus making the hand-blocked willow frame

most popular in the fall and winter season.

(c) Light Weight Willow or Undressed Willow. The general use of undressed willow is for collapsible hats, the frames of which are often cut from patterns. Fur hats are often made on soft or undressed willow frames as this frame makes a lighter hat than when medium willow is used.

Cape or Rice Net

Cape or Rice Net is used for blocking in the spring and summer season. Where a hat is to be covered plain with satin, taffeta, or any other firm fabric material, two thicknesses of cape or rice net is used over the wire block, to make a frame secure enough to fit over. When cape or rice net is used as a foundation for soft straws or lightweight material such as Georgette crepe or organdie, one thickness of net is used, instead of the two which are used over the wire frame. The choice between one or two thicknesses of cape or rice net when used for blocking is entirely governed by the effect desired and the durability of

the hat. While I have divided the blocking materials into the two millinery seasons, placing willows in the fall and winter and the cape or rice nets in the spring and summer, *in some cases medium willow is used in the spring and cape or rice net in the fall.* Again it is a question of effect.

Frame Coverings Used As Interlinings

The interlining on a frame serves two purposes. (a) First, to cover imperfections in the frame or to make a perfect surface over which to fit outer coverings. (b) To emphasize the texture of the outer covering, or change either its texture or coloring. I will illustrate by describing the uses of materials mentioned below.

Light-Weight Flannel

1. Light-Weight Flannel may be used in covering a rough, poorly-made frame to make a perfect surface on which to fit outer material, or it may be used on a very smooth frame to give a softer effect to the finished hat. For example, where material is to be quilted, as in some sport hats, flannel is a most effective interlining.

Tarlatan and Mull

2 & 3. Tarlatan and Mull are used for interlining materials where the texture of the willow

or cape-net frame would show through the outer covering. In this case the interlining is not used to make a perfect surface to fit over or to emphasize the texture of outer material. It serves merely as a lining to thin satin or taffeta.

Crinoline

4. Crinoline. (a) The general use of Crinoline is to bind the edges of frames where the wired edge would wear through the outer material. (b) Crinoline is sometimes used for making soft crowns when the crown is cut from a pattern.

Cotton Crepe

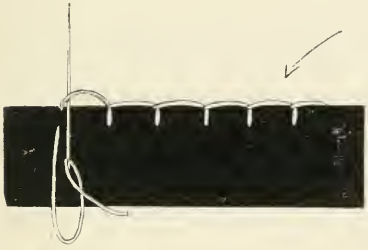
5. Cotton Crepe is used for an interlining under Georgette crepe. This is one of the most striking examples of an interlining material used to emphasize the texture of the outer covering. Any of these interlinings, where used under very thin materials, may be used in a different color to make a changeable effect in color on the finished hat.

Satin may be used as an interlining for thin Georgette crepe, the finished effect being like suede.

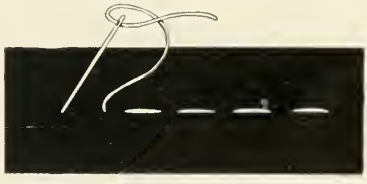
CHAPTER XXVII.

STITCHES USED IN MILLINERY

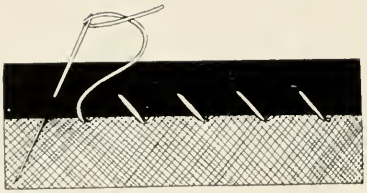
ALL through these lessons we have learned through the text and illustrations new stitches, unknown to us before studying millinery. We have used them in their practical application which is the only helpful way to learn anything. Nevertheless, a summarized review of these stitches may be helpful at this point. In the illustrations shown, the dotted lines merely indicate the course of the thread where it is concealed under the material.



The first stitch we used in making a hat was the Button-hole Stitch. This stitch was used in wiring the head-size and edgewire of the first willow frame we wired after removing from the wire block. Each time we have wired a frame this stitch has been used. Let us see what the perfect stitch form of a button-hole stitch is.

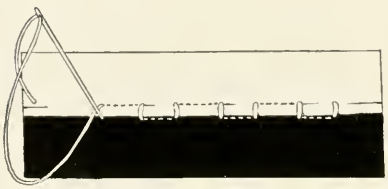


The second stitch we used was the Long and Short Stitch. This stitch is illustrated in the chapter on principles and methods of covering frames. The stitch is used there to fasten head-size material. The first use we made of this stitch was to bind the crinoline on the edge of the willow frame



The third stitch. Cross Stitching was used in fastening the top brim covering flat, ready for the facing. This stitch is used wherever such an effect may be desired, as in sewing material over base of crown or over brim-edge.

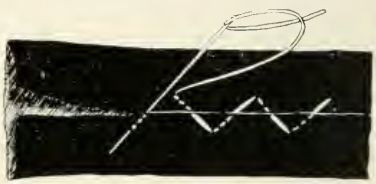
The Tie Tack was the fourth stitch we learned. It was used at that time for holding the crown in place until the permanent sewing was completed.



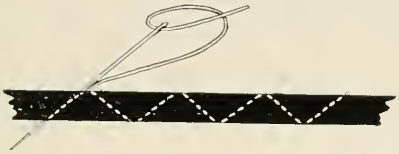
Fifth, the Slip-Stitch was used to fasten crown on brim Sixth, the Slip Stitch was used again in finishing the edge of the facing in a plain velvet hat. This time the slip stitch was used to hold the wire in place—a long stitch on the side where the wire was pinned and the short slip-stitch in the hat. This stitch is in reality a slip-stitch but is sometimes called a Wire Stitch because it is always used to fasten wires in material where wires are used to finish the edges of facings, top brims, crowns, flanges, bindings, etc.

Seventh, we used the slip-stitch, varying the length of the stitches again to close the joining where velvet was fitted on an irregular shape. A very short slip-stitch is used for this joining stitch.

Eighth, Back Stitching, is another useful stitch. This stitch may be used whenever a secure sewing is desired that can be done on the wrong side.



Ninth, Ball Stitching, is best seen holding unfinished edges together in plain and milliner's folds.



Tenth, Hidden Stitch. This slant stitch is used when one must stitch through a pressed straw hat or any other surface where it is necessary to stitch the right side of a finished hat and an invisible stitch must be made. The illustration represents a cross-section of a piece of material through which the needle is being worked.

One might go on indefinitely describing variations of these stitches mentioned, but these comprise the forms of the important stitches used in making all parts of hats.

CHAPTER XXVIII.

CO-OPERATIVE WORK BETWEEN WORKROOMS AND TRADE SCHOOLS

LAST summer while on my vacation I was asked by one of the well-known millinery men of New York City if, after my extensive trade and teaching experience in the millinery line, I could offer any remedy for the shortage of skilled help that is so hampering the millinery workrooms of today. I hope that this book will play a part in solving the problem.

I had been trying, previous to this inquiry, to see that all students coming to me with serious intentions should spend part of the time during their course gaining practical experience in the Fifth Avenue shops.

The first question that naturally arises from the trade in this matter is—

"What is the advantage of two or three days in classroom and the remainder of the week in the workrooms. Why not enter the workroom and learn the work from an apprentice up?"

I feel competent to answer that question from

my own personal experience. My first millinery experience was a course in a millinery classroom. Having completed the course I entered the trade as a worker in one of the Fifth Avenue shops. The first thing I was asked to do was to line a hat, which I did satisfactorily without any assistance. Second, a wire frame was given me to make; then I was given work requiring the blocking of the willow frame, and the wiring and covering of the frame with the velvet. After doing many frames and hats I was finally given a hat to copy. Copying was the most advanced work I was allowed to do during my first year's trade experience without any assistance from other members of the workroom.

Right here I should like to ask the trade a question in return for theirs:

"Does the average apprentice do as useful work in the first year as I was able to do because a competent person had been paid to teach and help me do the things I was asked to do in the shop?"

Workroom Instruction Haphazard

Who is there in the workrooms to help the apprentice quickly to become really useful, not only for her own sake but for the sake of the house where she is employed? *We, who have worked in workrooms, know that apprentices snatch a little help here and a little there from some one who is kind enough to give them a helping hand. Otherwise, unless they are exceptionally brilliant, they go through the first year lining and wiring and*

ripping a great deal, but not even approaching creative or constructive work.

There is really no one present in the average workroom whose special business it is to take the interest and time that are necessary to develop this apprentice into a competent maker. Everyone is busy and hard-pressed by the immediate need of turning out orders. With the best of intentions they cannot spend time on instruction, neither can they spare the material needed for orders or stock hats, some of which the beginner would be bound to spoil. Therefore the process of advancement must be slow, with the shop in the meantime badly needing advanced and proficient workers. In fact, the worker, passing through this discouraging early experience, is likely to give up altogether and thus a recruit is lost for the industry.

A 50-50 Teaching Plan

Thus far, my remarks have been seemingly in favor of teaching millinery apart from the workrooms. *Quite to the contrary, my experience has proven that two or three days a week in the class room, and the remainder of the week in the shop, brings better results than completing the course first and then entering the shop.*

The chief advantage is the quick application to actual practice of what has been recently taught. The work gains by the lively, inquiring interest of the pupil and the tuition gains by having its les-

sons fixed by experience. Then millinery is such seasonable work that at least two seasons would have to be completed before one could work efficiently in the trade unless the plan mentioned, of studying and working the same week, were followed.

How the Garment Trade Does It

I should like to tell of a teaching plan that is going on in some of the garment-making establishments of this country. Last year several of the graduates of the Household Arts Department of Pratt Institute were asked to take positions in the garment-making establishments as instructors and teachers of the working force. The graduate was first very carefully coached by one of the most capable workers in the exact methods used in that shop. The duty of the graduate from then on was to instruct new members of the factory and with the theoretical grasp acquired in the school, to try to advance the older help to more efficient work.

In the foregoing chapters I have attempted to outline a course and give it a detailed presentation that I am sure may be used successfully in any Fifth Avenue workroom, taught either by one of the more advanced workers or by an instructor from the outside who has had suitable training.

Great care should be exercised in choosing the right person from the workroom, to insure her ability to impart knowledge to others. When

instructors are brought from schools they must first have extensive trade experience, and second, should first spend some time in the workroom where they expect to instruct, until familiar with the methods used there.

Here is a plan I have worked out myself. Students come to me and say, "I want to follow millinery as a profession. When I finish this course will I be able to take a position?" I reply, "If you are willing to come here two days a week and work hard, starting actually to do repeated numbers of each detail in millinery from the foundation up, and spend the other three days in some Fifth Avenue shop, carrying out what you have thus far learned, I can promise you that after doing this co-operative work for two millinery seasons, you will have a permanent position."

Earning While Learning

At present I have very successful workers in many of the Fifth Avenue shops who are still under instruction. The students are well paid while doing this co-operative work, earning from $10 to $15 for their four days' work. I was able to place at good salaries every student who came to me with serious intentions last year. One of the Fifth Avenue shops thought favorably enough of the work we were doing to send one of its employes to two-day classes without loss of salary, that she might learn some special points about copying and trimming. Another student I have in mind without any trade experience except the

co-operative work covering two seasons, at the end of the time was able to trim and design, and is at the present time doing very successful work for one of the largest and best manufacturers.

In following this plan the study days are usually Tuesday and Friday, while Monday, Wednesday, Thursday and Saturday are devoted to actual practice in the shop.

Perhaps I have still not answered the question as to where the applicants interested in following millinery work may come from. This is important, as competent help is the question for solution. For one thing, if manufacturers encouraged this co-operation, the schools could produce many more workers than they do. Aside from the students making personal application for millinery work to us, we often have within our ranks girls who have not been successful in other studies—chemistry, household science, etc.—girls better suited to an artistic career, whom we might interest in this line if they felt through this experience they would be able to secure good positions in the Fifth Avenue shops.

Then the shops themselves have in their own organizations much unrecognized material. It seems evident to me that if instructive work were given in the shops, girls who will not of themselves take the initiative might be helped on to do more efficient work. In the rush they are fearful to advance and carry out ideas they may have in trimming, though they may really have the will and the ability to develop. Then there

is the possibility of attracting workers by making the shops attractive. If this helpful and enthusiastic attitude could be brought into the workroom by a regular system of instruction, is it not logical that the girls already there would bring others?

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